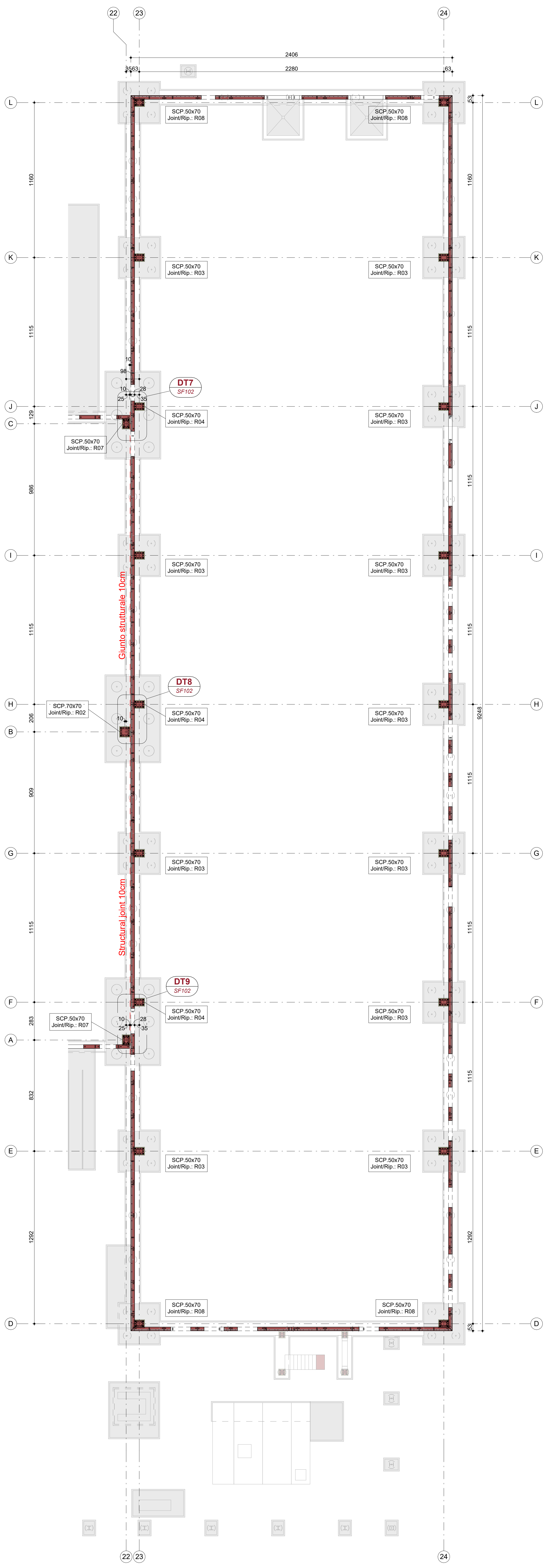
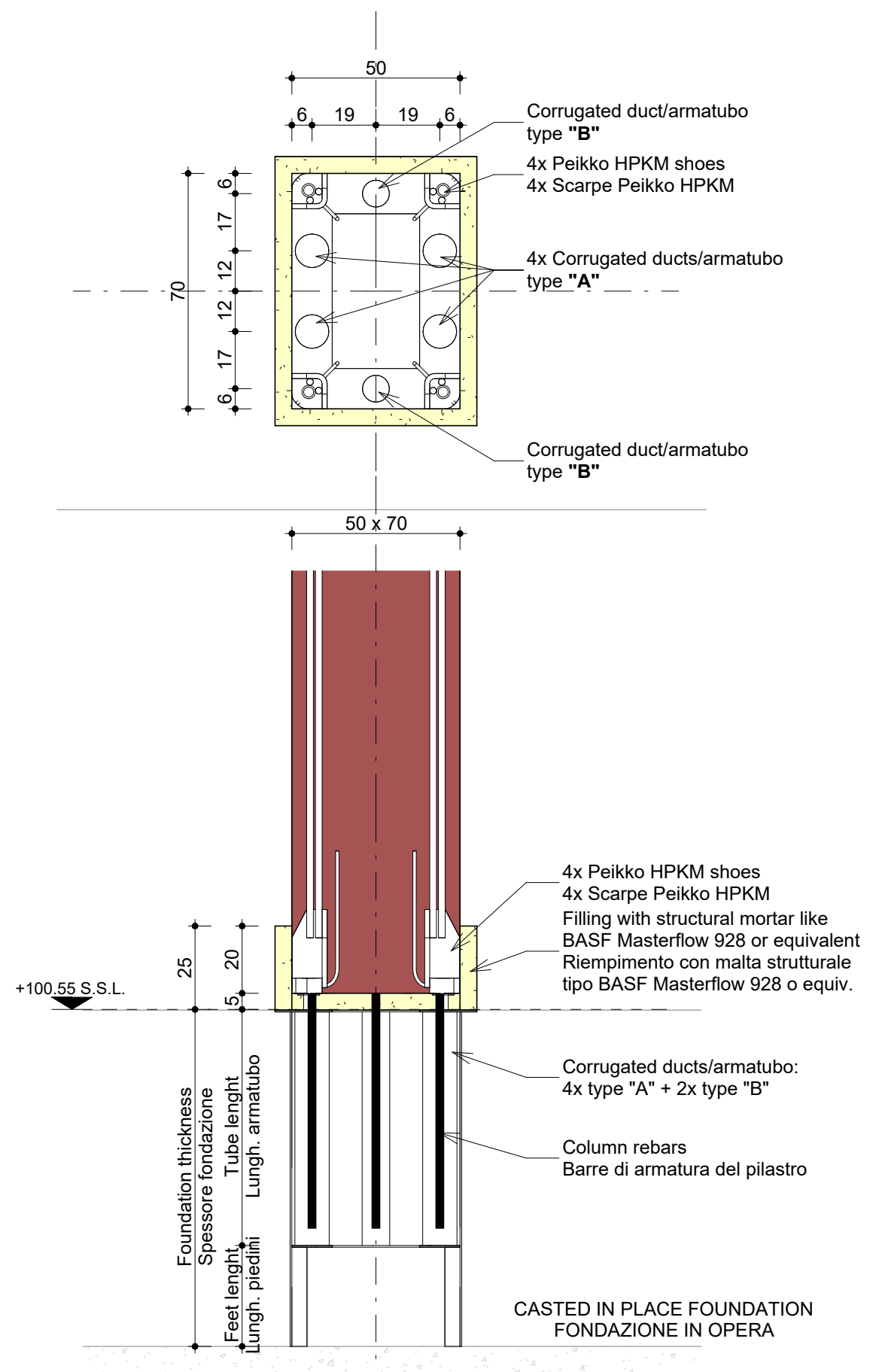
A0 - Do not scale


22
23
24
2406
2280
L
K
J
C
I
H
B
G
F
A
E
D
SCP.50x70 Joint/Rip.: R08
SCP.50x70 Joint/Rip.: R03
SCP.50x70 Joint/Rip.: R04
SCP.50x70 Joint/Rip.: R07
SCP.70x70 Joint/Rip.: R02
DT7 SF102
DT8 SF102
DT9 SF102
Giunto strutturale 10cm
Structural joint 10cm
1160
1115
986
909
832
1292
9248
129
206
283

Columnss plan - Top view / Vista dall'alto -

1 : 150


50
6
19
19
6
70
17
12
12
17
Corrugated duct/armatubo type "B"
4x Peikko HPKM shoes
4x Scarpe Peikko HPKM
4x Corrugated ducts/armatubo type "A"
Corrugated duct/armatubo type "B"
50 x 70
4x Peikko HPKM shoes
4x Scarpe Peikko HPKM
Filling with structural mortar like BASF Masterflow 928 or equivalent
Riempimento con malta strutturale tipo BASF Masterflow 928 o equiv.
+100.55 S.S.L.
25
20
5
Corrugated ducts/armatubo: 4x type "A" + 2x type "B"
Column rebars
Barre di armatura del pilastro
Foundation thickness
Spessore fondazione
Tube lenght
Lungh. armatubo
Feet lenght
Lungh. piedini
CASTED IN PLACE FOUNDATION
FONDAZIONE IN OPERA

SCP.50x70 column foot joint / Ripresa pilastro

1 : 20

COLUMN FOOT JOINTS / RIPRESE DEI PILASTRI

Joint type Ripresa	Count Conteggio	Column size [cm] Dimensioni pilastro	Foundation thickness Spessore fondazione	Peikko shoe type Tipo scarpa Peikko	Peikko bolt type Tipo tirafondo	Tube A Quantity N° armatubo A	Tube A Ø Ø armatubo A	Tube B Quantity N° armatubo B	Tube B Ø Ø armatubo B	Tube lenght Lungh. armatubo	Feet lenght Lungh. piedini
R01	18	70x70	120 cm	HPKM24	HPM24P	8	100 mm	0	0 mm	70 cm	50 cm
R02	4	70x70	120 cm	HPKM30	HPM30L	8	100 mm	0	0 mm	80 cm	40 cm
R03	21	50x70	<variabile>	HPKM30	HPM30L	4	80 mm	2	80 mm	<variabile>	<variabile>
R04	3	50x70	120 cm	HPKM30	HPM30L	4	80 mm	2	80 mm	60 cm	60 cm
R05	36	50x70	100 cm	HPKM30	HPM30L	4	100 mm	2	80 mm	70 cm	30 cm
R06	8	50x70	100 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	90 cm	10 cm
R07	2	50x70	120 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	80 cm	40 cm
R08	2	50x70	160 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	90 cm	70 cm

Precast columns Pilastri prefabbricati

70 × 70	SCP.70x70
70 × 50	SCP.50x70

Ga Plans Legend / Legenda Carpenteria

■	Cast in place concrete section element / Sezione elementi gettati in opera
▨	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
☐	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

General Notes

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8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

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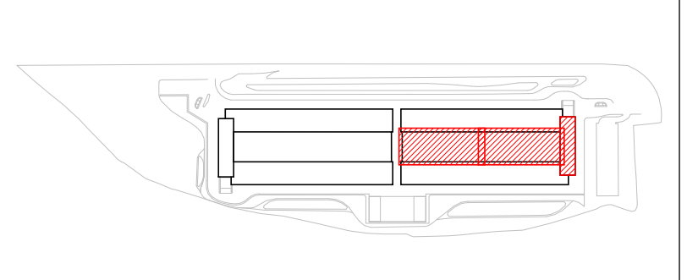
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600

SCALE 1:150

N

Key Plan



Precast details may be modified by precast manifacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision /
I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Precast Column Plan
Quarter V

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

Status Code
S5

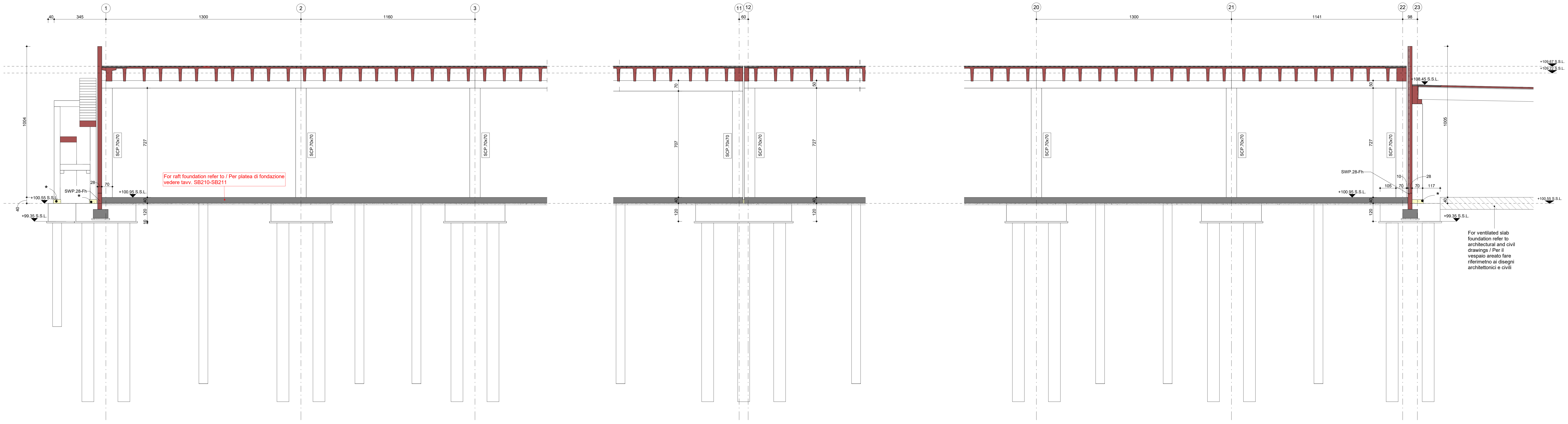
Project Number
P10424

Scale @ A0
1:150

Revision
P02

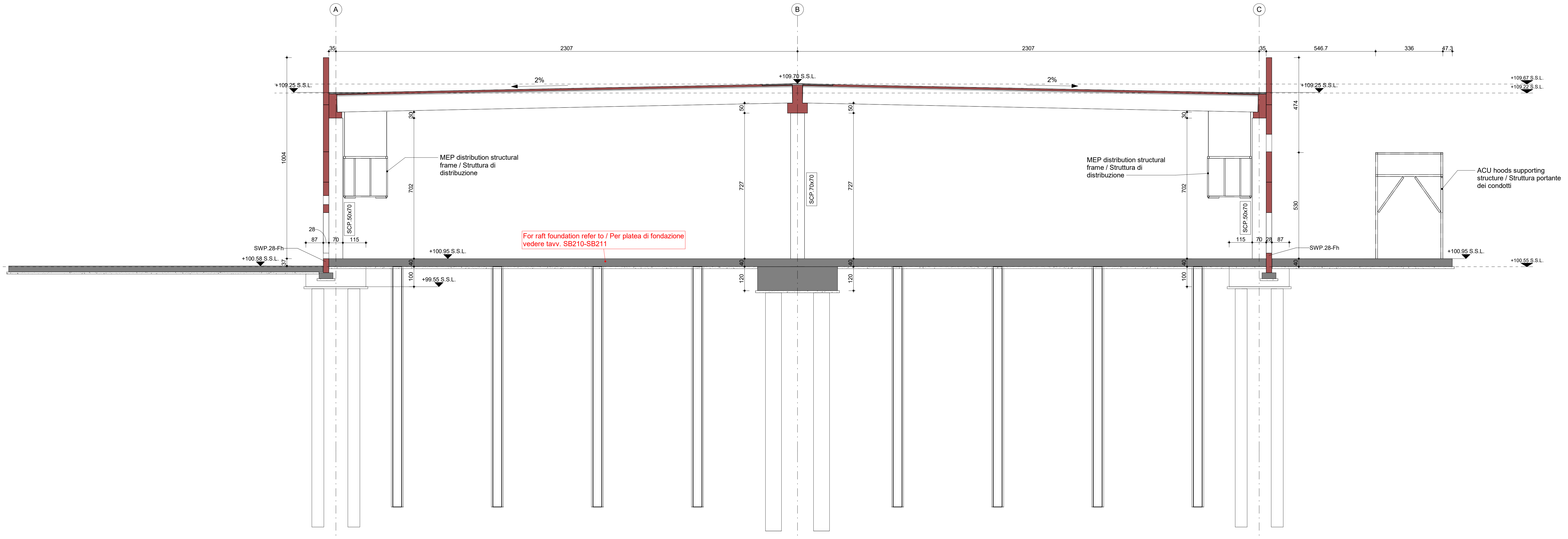
Drawing Number
SF103

A0 - Do not scale


1
2
3
11
12
20
21
22
23
40
345
1300
1160
60
1300
1141
98
1004
1005
727
707
50
70
28
105
10
117
40
120
10
SCP.70x70
SWP.28-Fh
*
+100.55 S.S.L.
+99.35 S.S.L.
+100.95 S.S.L.
+108.45 S.S.L.
+109.67 S.S.L.
+109.22 S.S.L.
For raft foundation refer to / Per platea di fondazione vedere tavv. SB210-SB211
For ventilated slab foundation refer to architectural and civil drawings / Per il vespaio areato fare riferimetno ai disegni architettonici e civili

Sect. / Sez. - SZ-A -

1 : 100


A
B
C
35
2307
2307
35
546.7
336
47.3
2%
2%
+109.25 S.S.L.
+109.70 S.S.L.
+109.67 S.S.L.
+109.22 S.S.L.
+100.95 S.S.L.
+100.58 S.S.L.
+100.55 S.S.L.
+99.55 S.S.L.
1004
474
530
702
727
30
50
40
37
100
120
28
87
70
115
SCP.50x70
SCP.70x70
SWP.28-Fh
MEP distribution structural frame / Struttura di distribuzione
MEP distribution structural frame / Struttura di distribuzione
ACU hoods supporting structure / Struttura portante dei condotti
For raft foundation refer to / Per platea di fondazione vedere tavv. SB210-SB211

Sect. / Sez. - SZ-B -

1 : 100

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent / Le fessure con la fondazione esistente devono essere sigillate con malta on strutturale tipo Masterflow Tixotropica 960TIX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

Ga Plans Legend / Legenda Carpenteria

▩	Cast in place concrete section element / Sezione elementi gettati in opera
▨	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
⬚	Lean concrete section element / Sezione elementi magrone
🟨	Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

General Notes

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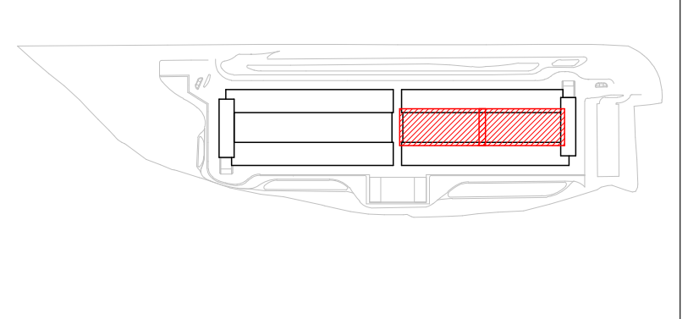
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

N

Key Plan



Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	FCT/FIBH/MEG	22/02/2023
P02	Issued for Construction	FCT/FIBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
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Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Sections
Sector DH-3&DH-4 and Sector DH-1&DH-2

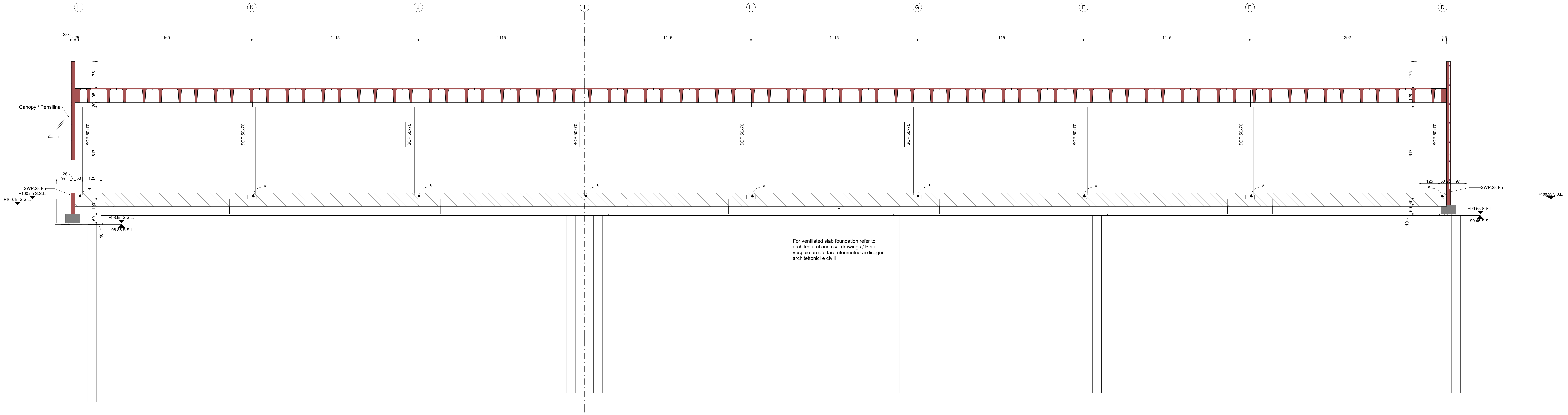
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:100**	**P03**

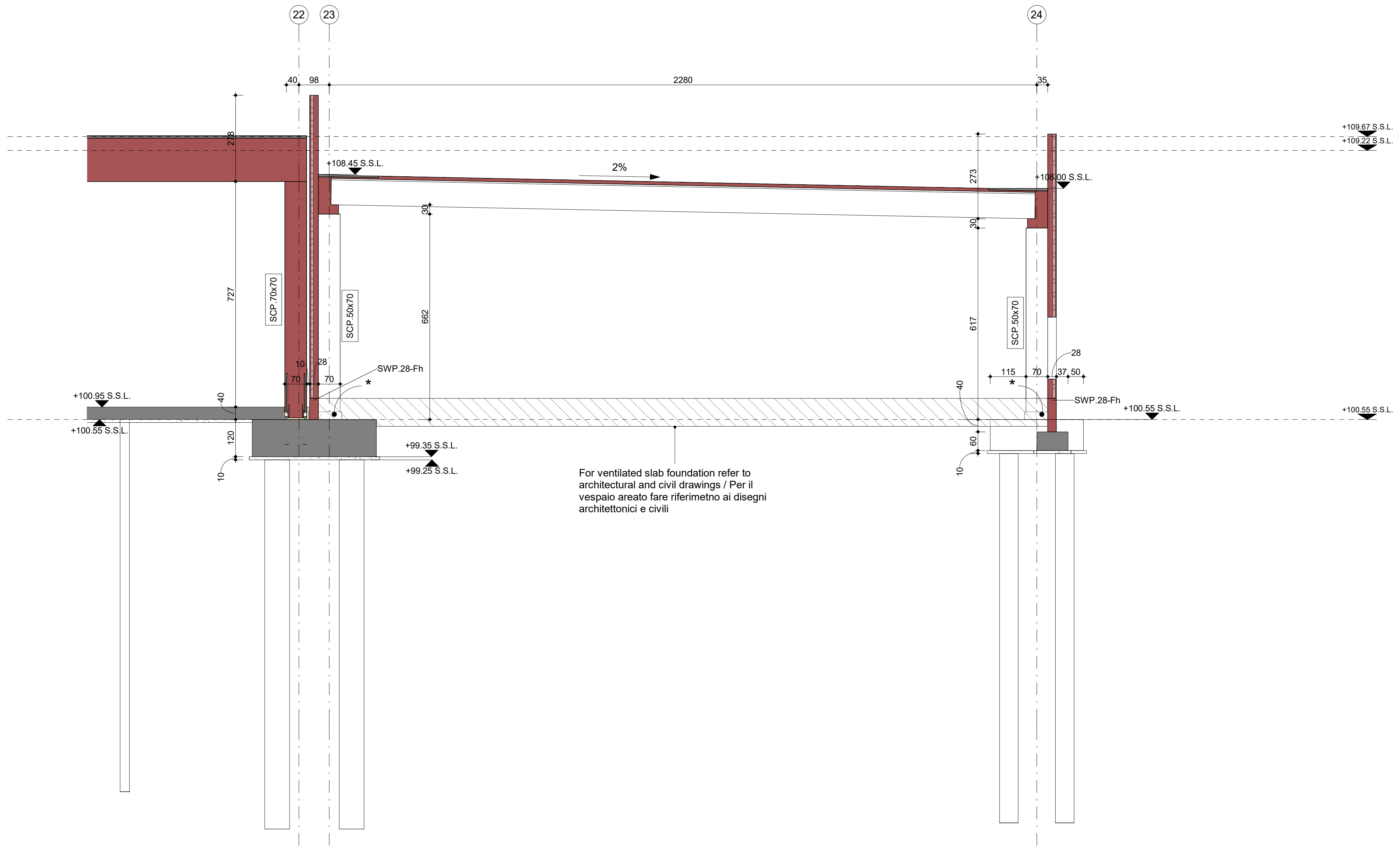
Drawing Number
SF301

A0 - Do not scale


L
K
J
I
H
G
F
E
D
28
25
1160
1115
1115
1115
1115
1115
1115
1292
25
175
98
30
128
617
SCP.50x70
Canopy / Pensilina
28
97
50
125
SWP.28-Fh
+100.55 S.S.L.
+100.15 S.S.L.
100
60
10
+98.95 S.S.L.
+98.85 S.S.L.
*
125
50
28
97
SWP.28-Fh
+100.55 S.S.L.
40
60
10
+99.55 S.S.L.
+99.45 S.S.L.
For ventilated slab foundation refer to architectural and civil drawings / Per il vespaio areato fare riferimetno ai disegni architettonici e civili

Sect. / Sez. - SZ-C -

1 : 100


22
23
24
40
98
2280
35
278
+108.45 S.S.L.
2%
+108.00 S.S.L.
+109.67 S.S.L.
+109.22 S.S.L.
273
30
727
SCP.70x70
SCP.50x70
662
617
10
28
70
70
SWP.28-Fh
*
+100.95 S.S.L.
+100.55 S.S.L.
40
120
10
+99.35 S.S.L.
+99.25 S.S.L.
115
70
37
50
28
SWP.28-Fh
+100.55 S.S.L.
40
60
10
For ventilated slab foundation refer to architectural and civil drawings / Per il vespaio areato fare riferimetno ai disegni architettonici e civili

Sect. / Sez. - SZ-D -

1 : 100

Note:

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** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

Ga Plans Legend / Legenda Carpenteria

▆	Cast in place concrete section element / Sezione elementi gettati in opera
▒	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
░	Lean concrete section element / Sezione elementi magrone
🟨	Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
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◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

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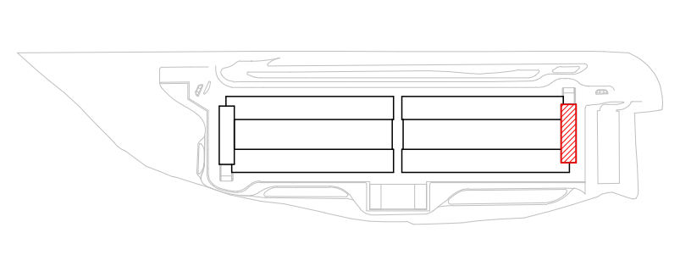
100 0 100 200 300 400

SCALE 1:100

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FIBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

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PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

Superstructure
Sections
Quarter V

Project Status

ISSUED FOR CONSTRUCTION

Discipline: **Structural**

Status Code: **S5**

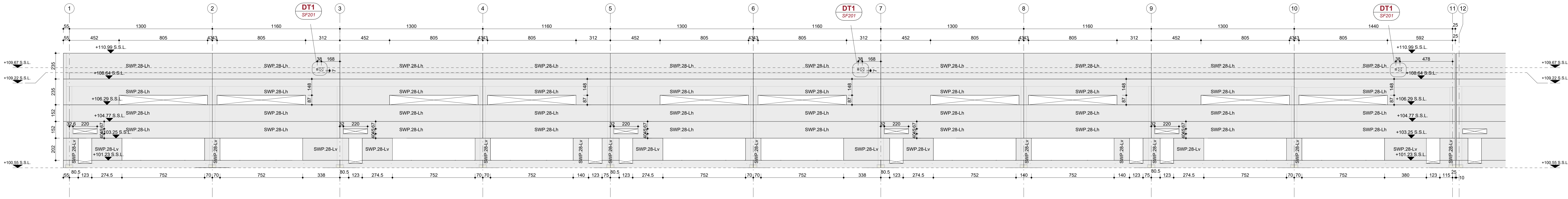
Project Number: **P10424**

Scale @ A0: **1:100**

Revision: **P02**

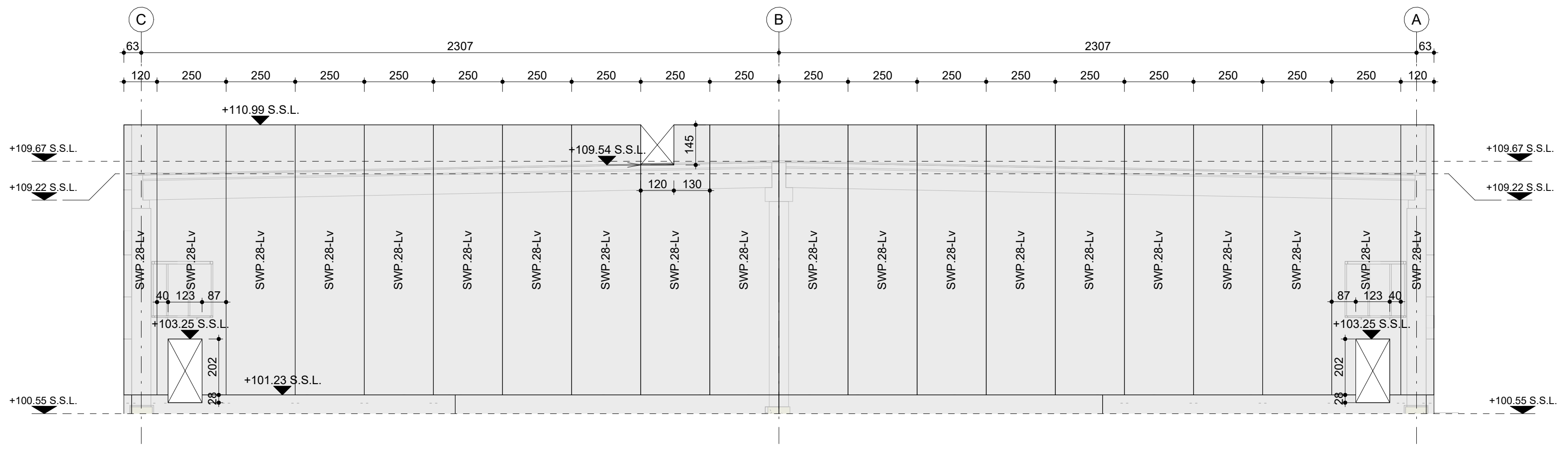
Drawing Number: **SF302**

A0 - Do not scale


1
2
3
4
5
6
7
8
9
10
11
12
DT1
SF201
1300
1160
1440
452
805
312
592
+110.99 S.S.L.
+109.67 S.S.L.
+109.22 S.S.L.
+108.64 S.S.L.
+106.29 S.S.L.
+104.77 S.S.L.
+103.25 S.S.L.
+101.23 S.S.L.
+100.55 S.S.L.
SWP.28-Lh
SWP.28-Lv
80.5
123
274.5
752
338
140
380

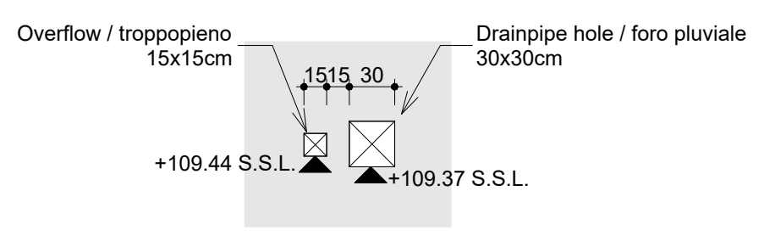
Elev. / Pro. - EL10 -

1 : 150


C
B
A
2307
120
250
+110.99 S.S.L.
+109.67 S.S.L.
+109.22 S.S.L.
+109.54 S.S.L.
+103.25 S.S.L.
+101.23 S.S.L.
+100.55 S.S.L.
SWP.28-Lv
145
120
130
202

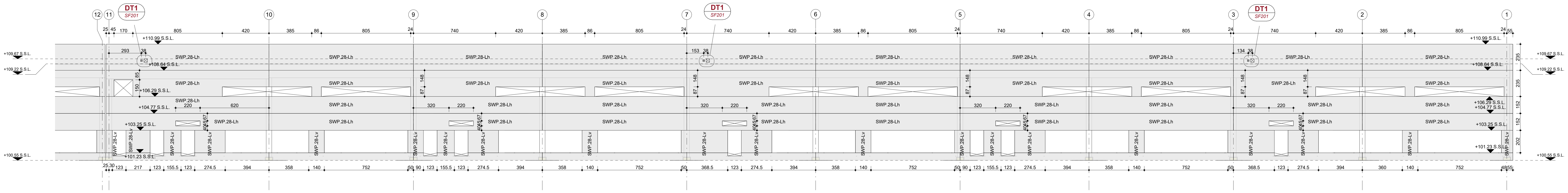
Elev. / Pro. - EL11 -

1 : 150


Overflow / troppopieno
15x15cm
Drainpipe hole / foro pluviale
30x30cm
15
15
30
+109.44 S.S.L.
+109.37 S.S.L.

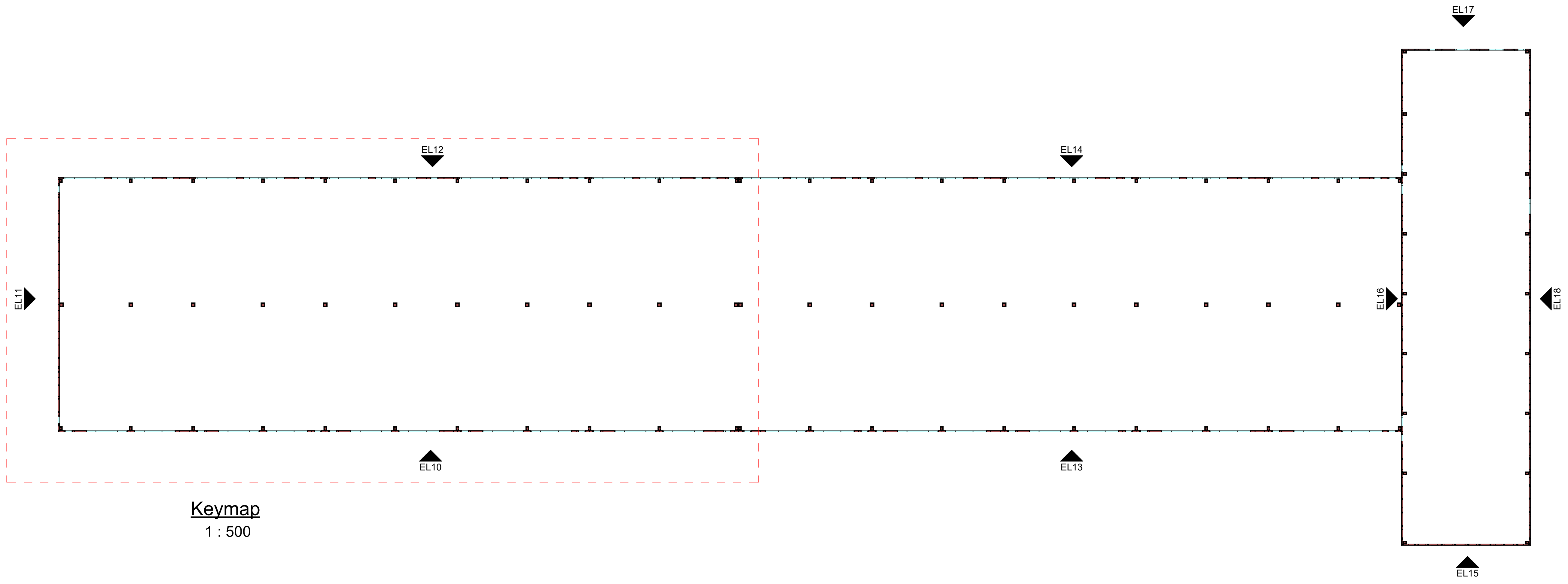
Detail / Dett. - DT1 -

1 : 50


12
11
10
9
8
7
6
5
4
3
2
1
DT1
SF201
805
420
385
740
+110.99 S.S.L.
+109.67 S.S.L.
+109.22 S.S.L.
+108.64 S.S.L.
+106.29 S.S.L.
+104.77 S.S.L.
+103.25 S.S.L.
+101.23 S.S.L.
+100.55 S.S.L.
SWP.28-Lh
SWP.28-Lv
320
220
620
123
274.5
394
358
140
752
368.5

Elev. / Pro. - EL12 -

1 : 150


EL17
EL12
EL14
EL11
EL16
EL18
EL10
EL13
EL15

Keymap

1 : 500

Ga Plans Legend / Legenda Carpenteria

▆	Cast in place concrete section element / Sezione elementi gettati in opera
▒	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
☐	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Precast concrete panels stratigraphy
Stratigrafia dei pannelli prefabbricati

SWP.28-Tv P.r.c./C.a.v. 5cm Insulation/Isolamento 5cm (*) P.r.c./C.a.v. 18cm with lightening/ con alleggerimento (*) Vertical precast panel - Thermal break Pannelli pref. verticali a taglio termico	**SWP.28-Lv** P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Vertical precast panel - Lightened Pannelli pref. verticali alleggeriti
SWP.28-Fh P.r.c./C.a.v. 28cm Horizontal precast panel - Filled Pannelli pref. orizzontali pieni	**SWP.28-Lh** P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Horizontal precast panel - Lightened Pannelli pref. orizzontali alleggeriti

(*) Insulation and lightening of the precast panels must locally have a fire reaction class of not less than A2-s1,d0. Please check the drawing FS102 for the vertical strips for which this requirement applies / L'isolante e l'alleggerimento dei pannelli prefabbricati devono avere localmente una classe di reazione al fuoco uguale o superiore a A2-s1, d0. Si faccia riferimento alla tavola FS102 per le fascie verticali interessate.

Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

General Notes

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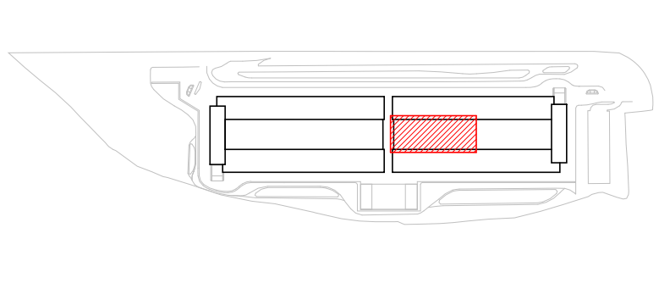
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600

SCALE 1:150

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

Architectural / Civil / Structural

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Precast Panels Elevation
Sector DH-3&DH-4

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

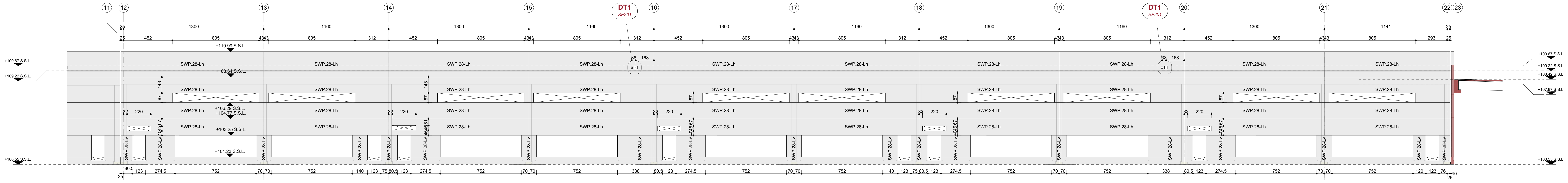
Status Code
S5

Project Number
P10424

Scale @ A0
1:150

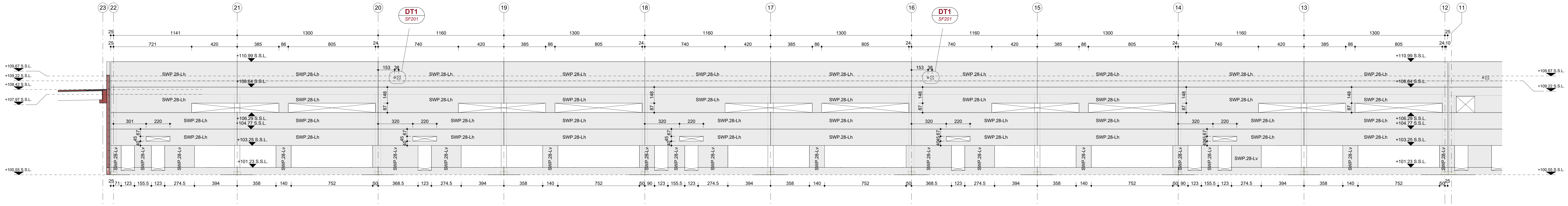
Revision
P02

Drawing Number
SF201



Elev. / Pro. - EL13 -

1 : 150



Elev. / Pro. - EL14 -

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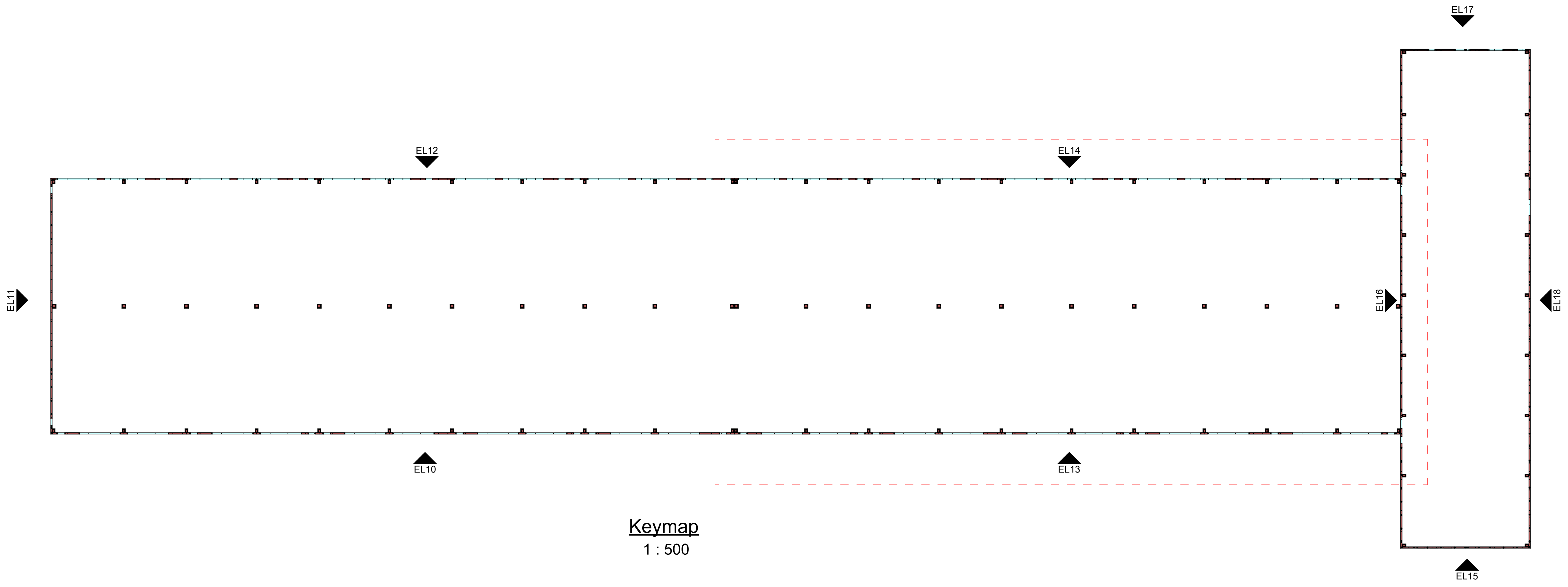

Keymap

1 : 500

Ga Plans Legend / Legenda Carpenteria

▆	Cast in place concrete section element / Sezione elementi gettati in opera
▒	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
☐	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Precast concrete panels stratigraphy
Stratigrafia dei pannelli prefabbricati

SWP.28-Tv P.r.c./C.a.v. 5cm Insulation/Isolamento 5cm (*) P.r.c./C.a.v. 18cm with lightening/ con alleggerimento (*) Vertical precast panel - Thermal break Pannelli pref. verticali a taglio termico	**SWP.28-Lv** P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Vertical precast panel - Lightened Pannelli pref. verticali alleggeriti
SWP.28-Fh P.r.c./C.a.v. 28cm Horizontal precast panel - Filled Pannelli pref. orizzontali pieni	**SWP.28-Lh** P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Horizontal precast panel - Lightened Pannelli pref. orizzontali alleggeriti

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Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

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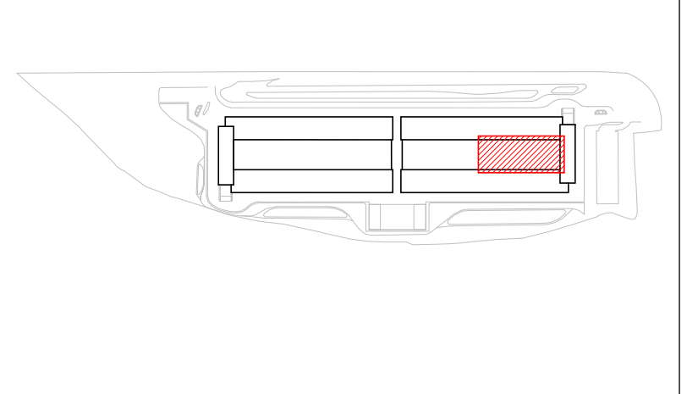
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600

SCALE 1:150

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA

Redesco Structural Engineering

Lead Consultant / MEP Designer

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Office No. 1801
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PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

Superstructure
Precast Panels Elevation
Sector DH-1&DH-2

Project Status

ISSUED FOR CONSTRUCTION

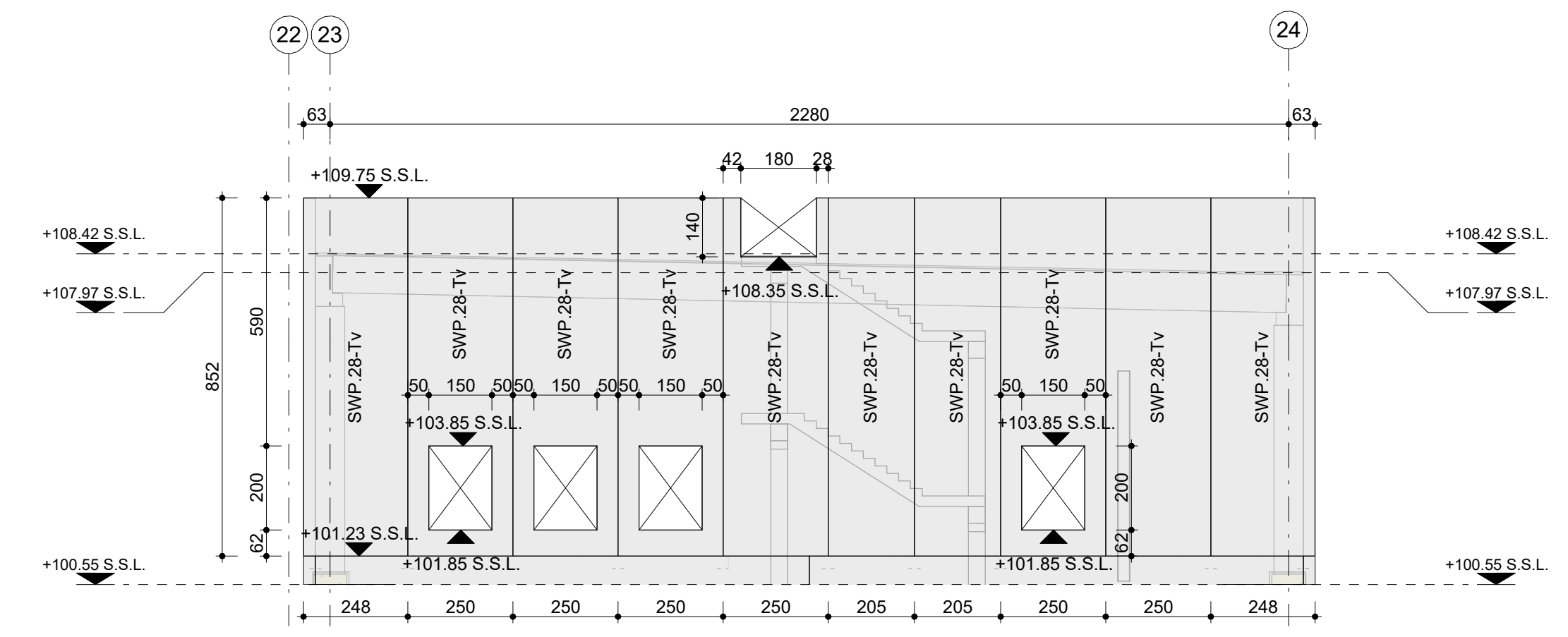
Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:150**	**P02**

Drawing Number

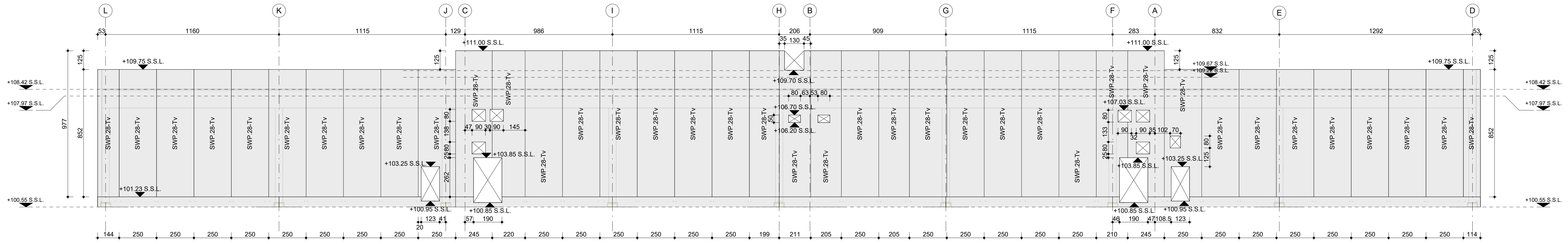
SF202

A0 - Do not scale


22
23
24
2280
SWP.28-Tv
+109.75 S.S.L.
+108.42 S.S.L.
+107.97 S.S.L.
+100.55 S.S.L.
+103.85 S.S.L.
+101.85 S.S.L.
+101.23 S.S.L.
+108.35 S.S.L.

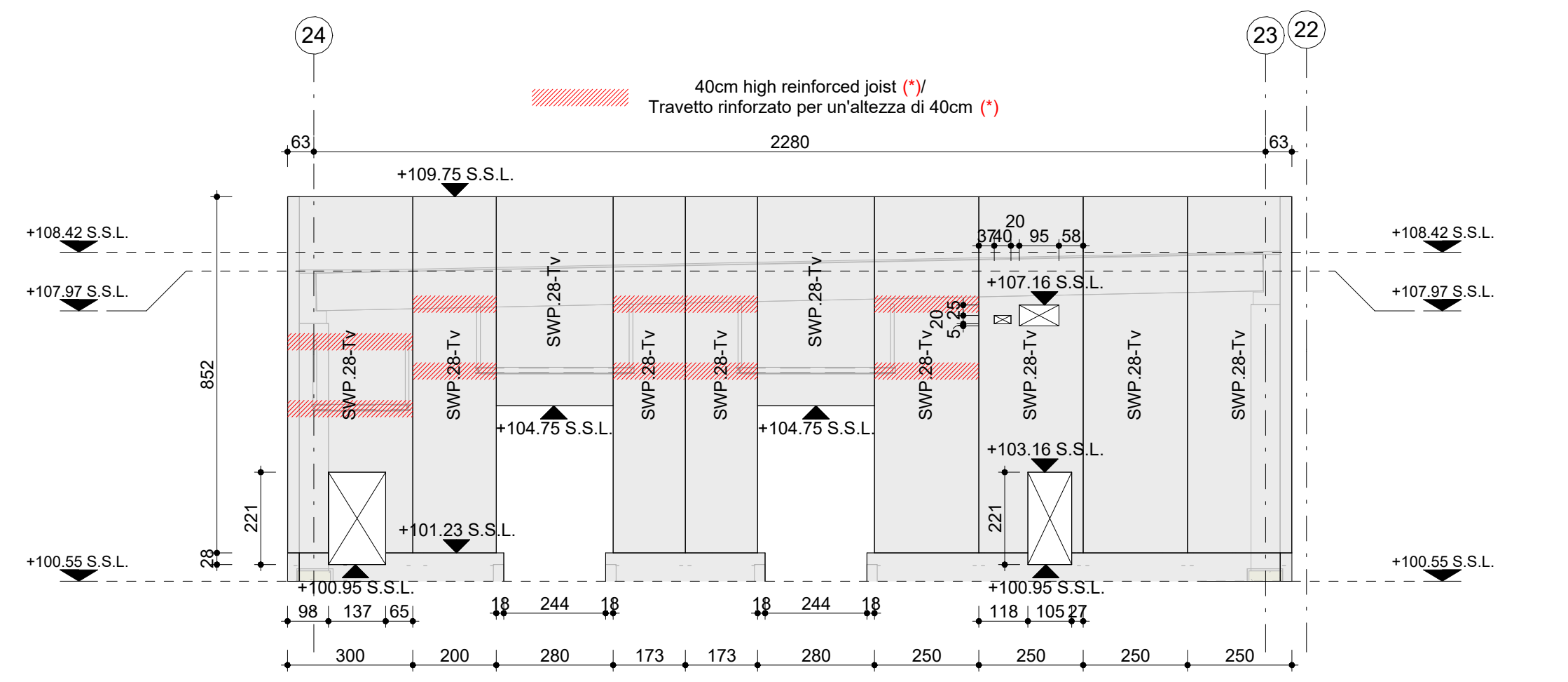
Elev. / Pro. - EL15 -

1 : 150


L
K
J
C
I
H
B
G
F
A
E
D
1160
1115
986
909
832
1292
SWP.28-Tv
+111.00 S.S.L.
+109.75 S.S.L.
+108.42 S.S.L.
+107.97 S.S.L.
+100.55 S.S.L.

Elev. / Pro. - EL16 -

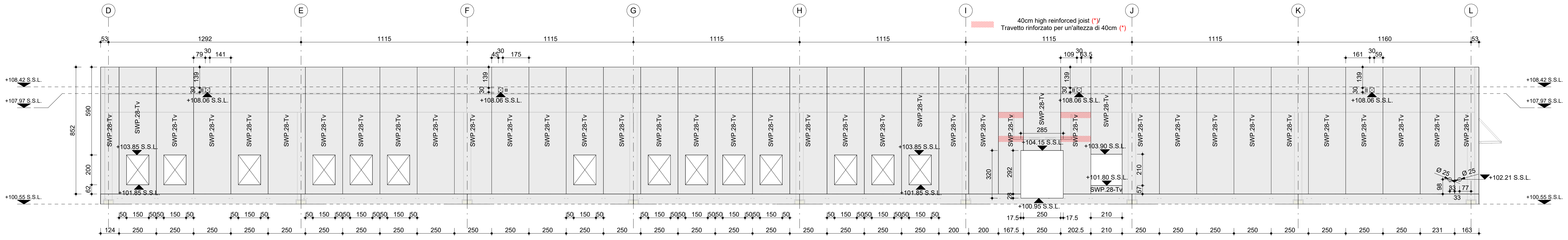
1 : 150


24
23
22
40cm high reinforced joist (*)/
Travetto rinforzato per un'altezza di 40cm (*)
2280
SWP.28-Tv
+109.75 S.S.L.
+108.42 S.S.L.
+107.97 S.S.L.
+107.16 S.S.L.
+104.75 S.S.L.
+103.16 S.S.L.
+101.23 S.S.L.
+100.95 S.S.L.
+100.55 S.S.L.

Elev. / Pro. - EL17 -

1 : 150

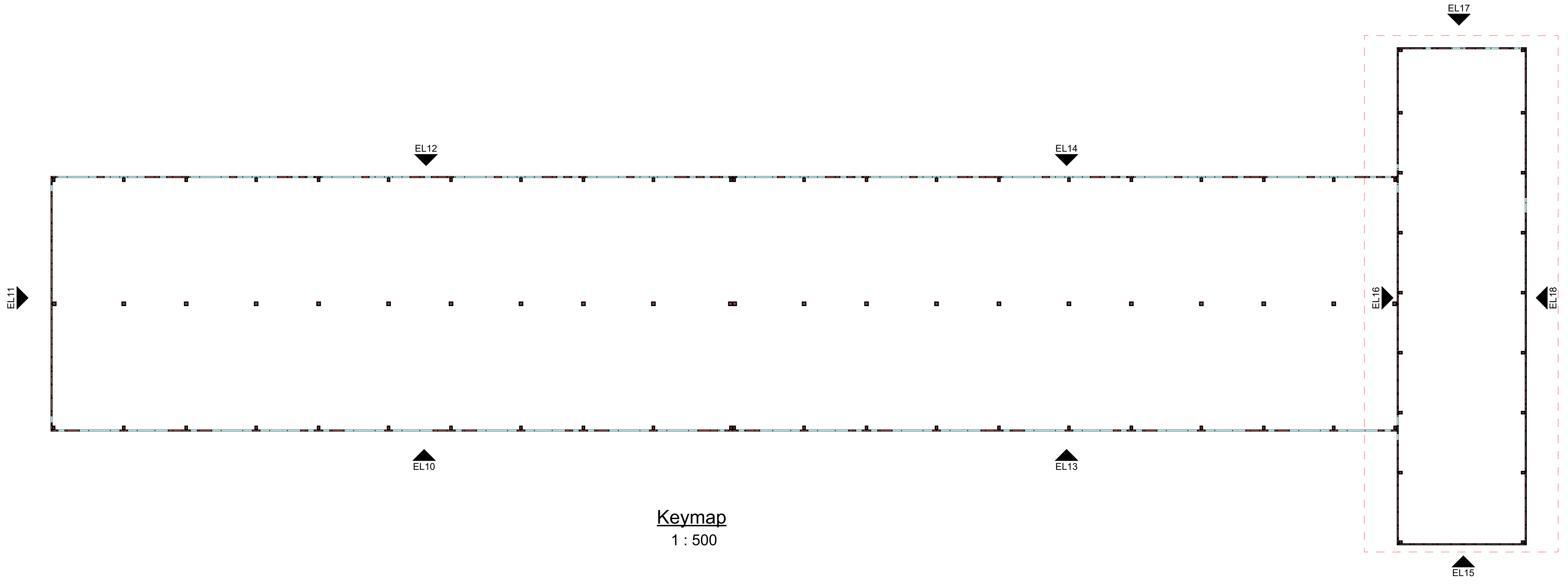
(*) Check documents -SF110- for steel canopies and -SF510- for related details /
Vedi tavole -SF110- per le pensiline in acciaio e -SF510- per i relativi dettagli


D
E
F
G
H
I
J
K
L
40cm high reinforced joist (*)/
Travetto rinforzato per un'altezza di 40cm (*)
1292
1115
1160
SWP.28-Tv
+108.42 S.S.L.
+108.06 S.S.L.
+107.97 S.S.L.
+103.85 S.S.L.
+103.90 S.S.L.
+102.21 S.S.L.
+101.85 S.S.L.
+101.80 S.S.L.
+100.95 S.S.L.
+100.55 S.S.L.

Elev. / Pro. - EL18 -

1 : 150

(*) Check documents -SF110- for steel canopies and -SF510- for related details /
Vedi tavole -SF110- per le pensiline in acciaio e -SF510- per i relativi dettagli


EL17
EL12
EL14
EL11
EL16
EL18
EL10
EL13
EL15

Keymap

1 : 500

Ga Plans Legend / Legenda Carpenteria

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▼ + x.xx	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Precast concrete panels stratigraphy
Stratigrafia dei pannelli prefabbricati

SWP.28-Tv

P.r.c./C.a.v. 5cm
Insulation/Isolamento 5cm (*)
P.r.c./C.a.v. 18cm with lightening/ con alleggerimento (*)

Vertical precast panel - Thermal break
Pannelli pref. verticali a taglio termico

SWP.28-Lv

P.r.c./C.a.v. 6.5cm
Lightening/Alleggerimento 15cm (*)
P.r.c./C.a.v. 6.cm

Vertical precast panel - Lightened
Pannelli pref. verticali alleggeriti

SWP.28-Fh

P.r.c./C.a.v. 28cm

Horizontal precast panel - Filled
Pannelli pref. orizzontali pieni

SWP.28-Lh

P.r.c./C.a.v. 6.5cm
Lightening/Alleggerimento 15cm (*)
P.r.c./C.a.v. 6.cm

Horizontal precast panel - Lightened
Pannelli pref. orizzontali alleggeriti

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Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

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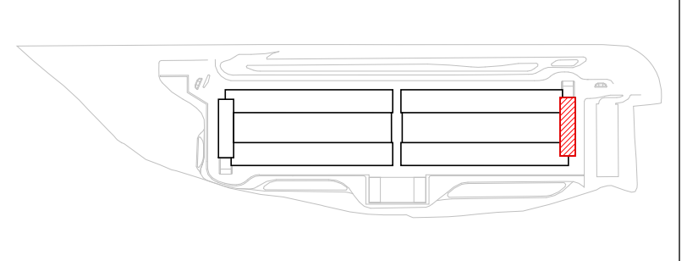
150 0 150 300 450 600
SCALE 1:150

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
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PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

Superstructure
Precast Panels Elevation
Quarter V

Project Status

ISSUED FOR CONSTRUCTION

Discipline
Structural

Status Code
S5

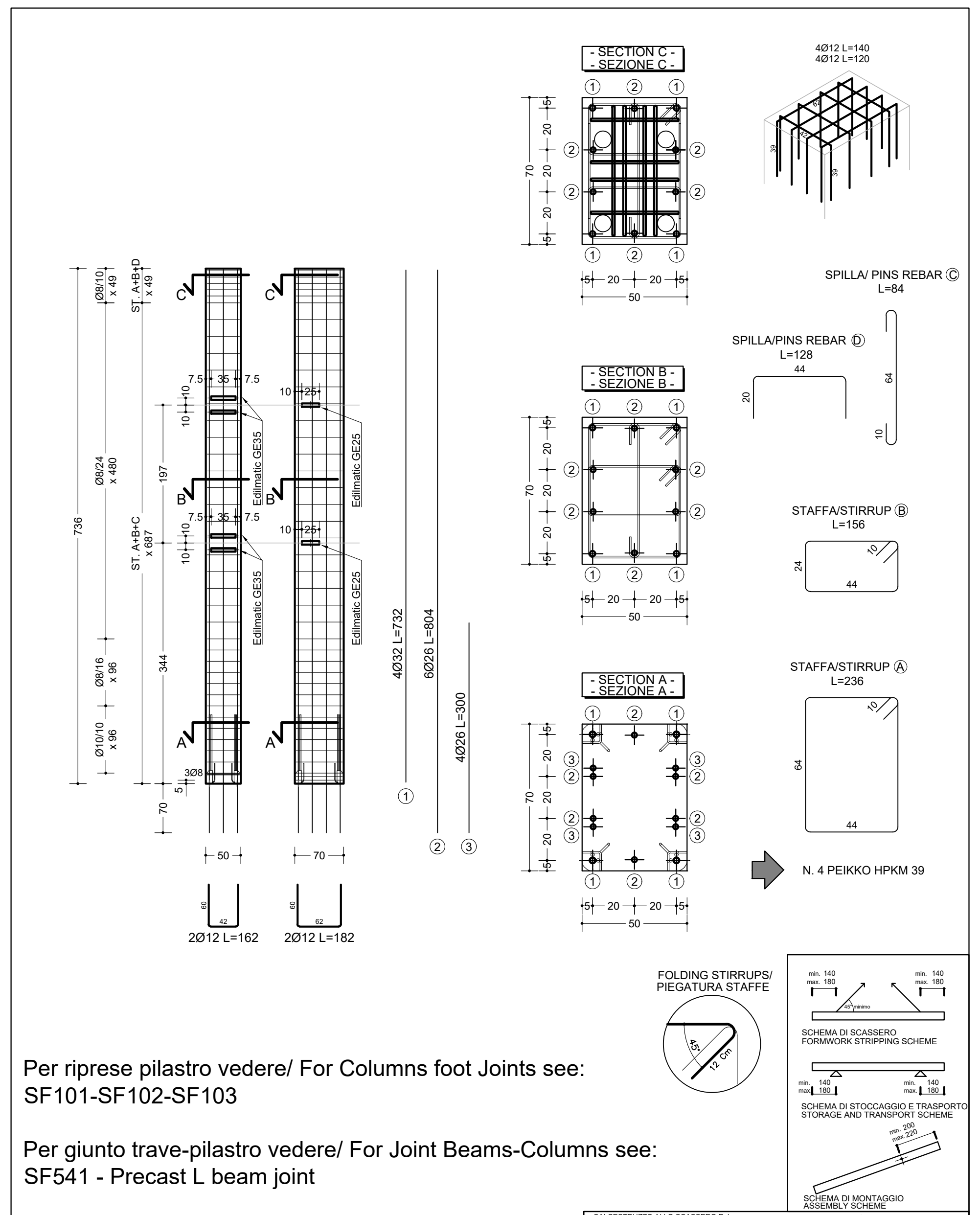
Project Number
P10424

Scale @ A0
1:150

Revision
P02

Drawing Number
SF203

A0 - Do not scale


- SECTION C -
- SEZIONE C -
4Ø12 L=140
4Ø12 L=120
SPILLA/ PINS REBAR Ⓒ
L=84
SPILLA/PINS REBAR Ⓓ
L=128
- SECTION B -
- SEZIONE B -
STAFFA/STIRRUP Ⓑ
L=156
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=236
N. 4 PEIKKO HPKM 39
Ø8/10 x 49
ST. A+B+D x 49
Ø8/24 x 480
ST. A+B+C x 687
Ø8/16 x 96
Ø10/10 x 96
736
197
344
3Ø8
Edilmatic GE35
Edilmatic GE25
4Ø32 L=732
6Ø26 L=804
4Ø26 L=300
2Ø12 L=162
2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
45°
12 Cm
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME
min. 140
max. 180
min. 200
max. 220

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast L beam joint

Per dettagli e posizionamento di Edilmatic GE vedere /
For Edilmatic GE details and positioning see:
SF510 - Steelworks typical details

SCP 50x70 Joint: R06 - 2,43%
SCP 50x70 Joint: R07 - 2,43%

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

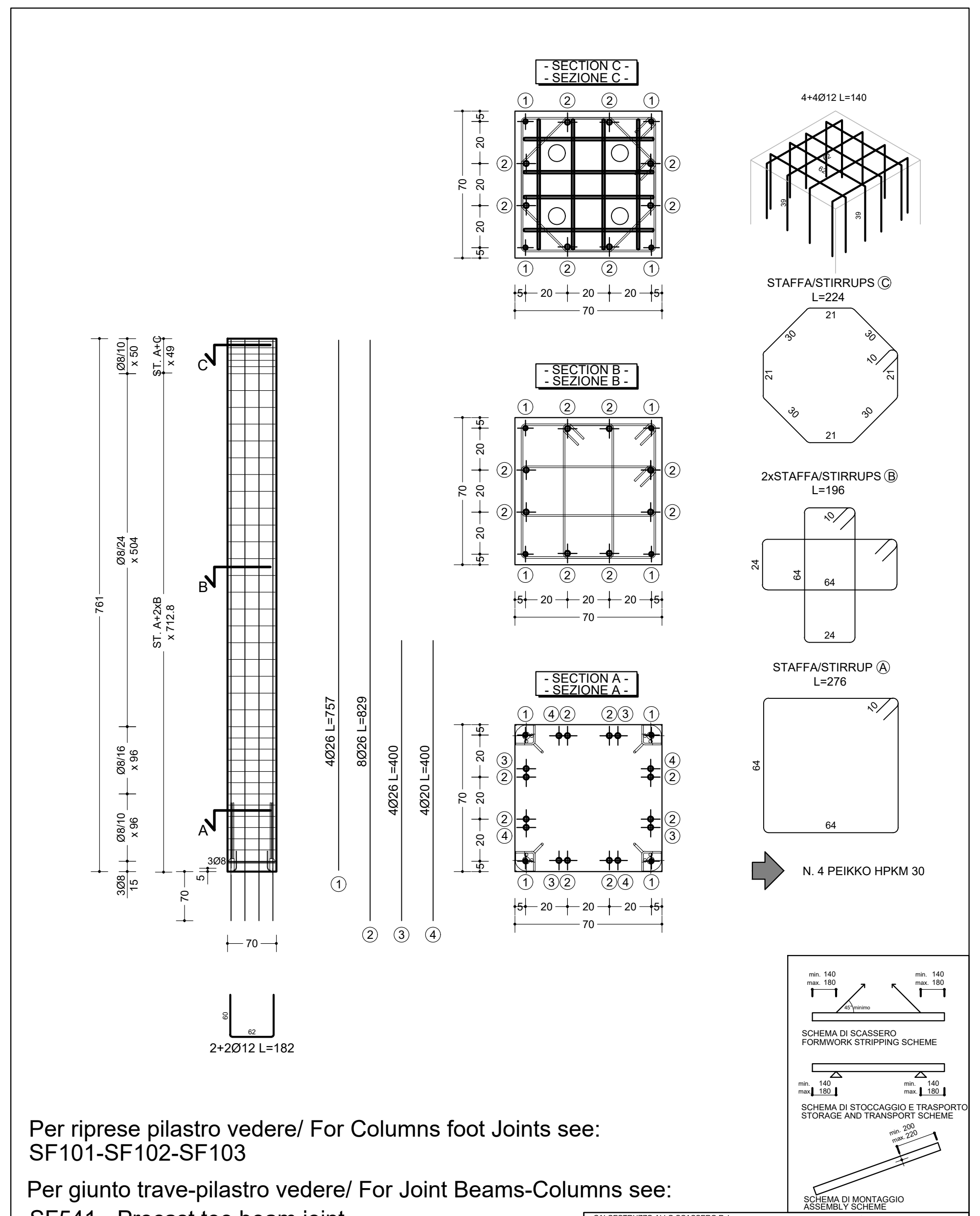
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4+4Ø12 L=140
STAFFA/STIRRUPS Ⓒ
L=224
- SECTION B -
- SEZIONE B -
2xSTAFFA/STIRRUPS Ⓑ
L=196
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=276
N. 4 PEIKKO HPKM 30
Ø8/10 x 50
ST. A+C x 49
Ø8/24 x 504
ST. A+2xB x 712.8
Ø8/16 x 96
Ø8/10 x 96
3Ø8 15
761
4Ø26 L=757
8Ø26 L=829
4Ø26 L=400
4Ø20 L=400
2+2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast tee beam joint

SCP 70x70 Joint: R02 - 1.99%

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

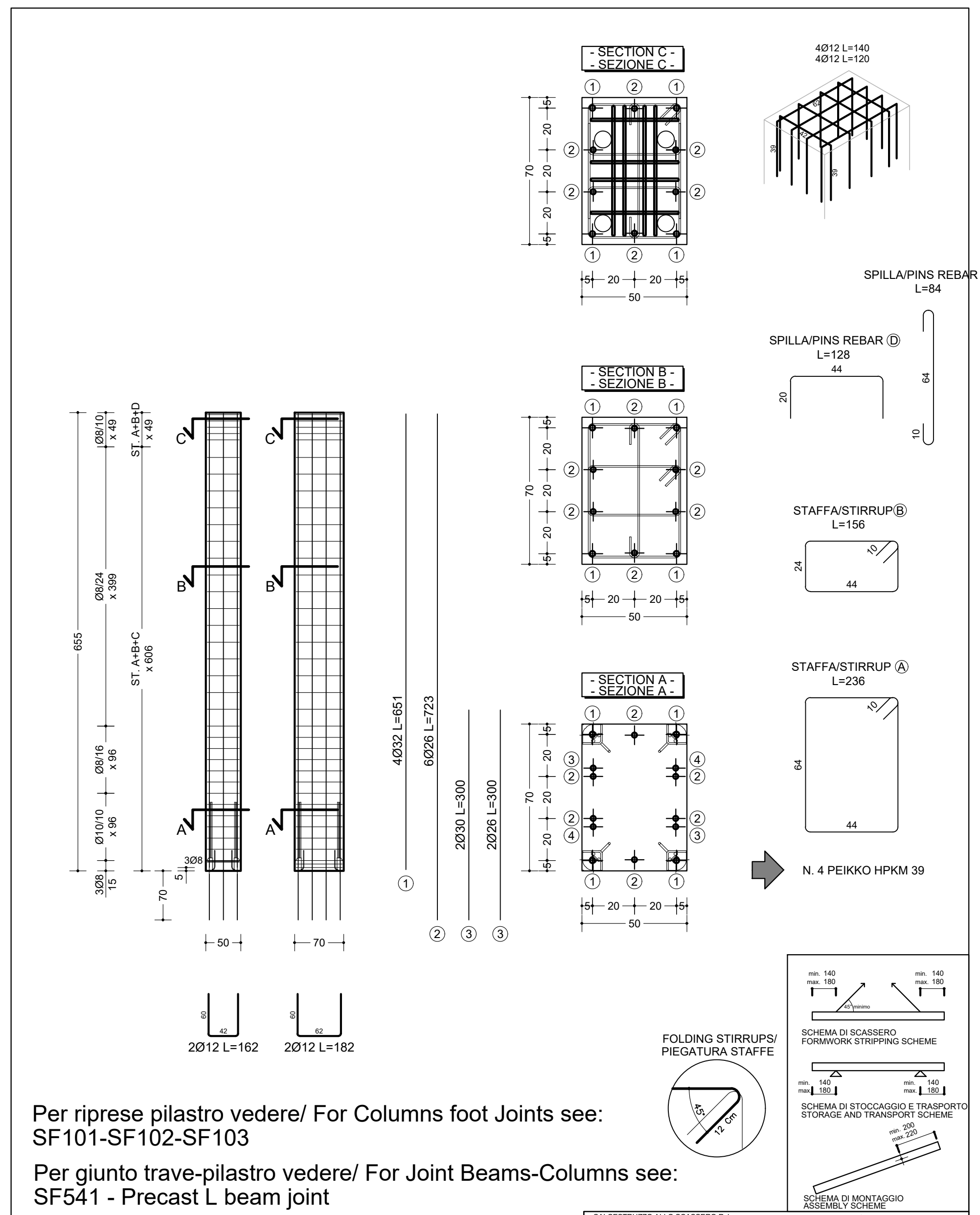
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4Ø12 L=140
4Ø12 L=120
SPILLA/PINS REBAR Ⓒ
L=84
SPILLA/PINS REBAR Ⓓ
L=128
- SECTION B -
- SEZIONE B -
STAFFA/STIRRUPⒷ
L=156
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=236
N. 4 PEIKKO HPKM 39
Ø8/10 x 49
ST. A+B+D x 49
Ø8/24 x 399
ST. A+B+C x 606
Ø8/16 x 96
Ø10/10 x 96
655
4Ø32 L=651
6Ø26 L=723
2Ø30 L=300
2Ø26 L=300
2Ø12 L=162
2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast L beam joint

SCP 50x70 Joint:R07 - 2,53% (FILO 23)
SCP 50x70 Joint:R08 - 2,53% (FILO 23)

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

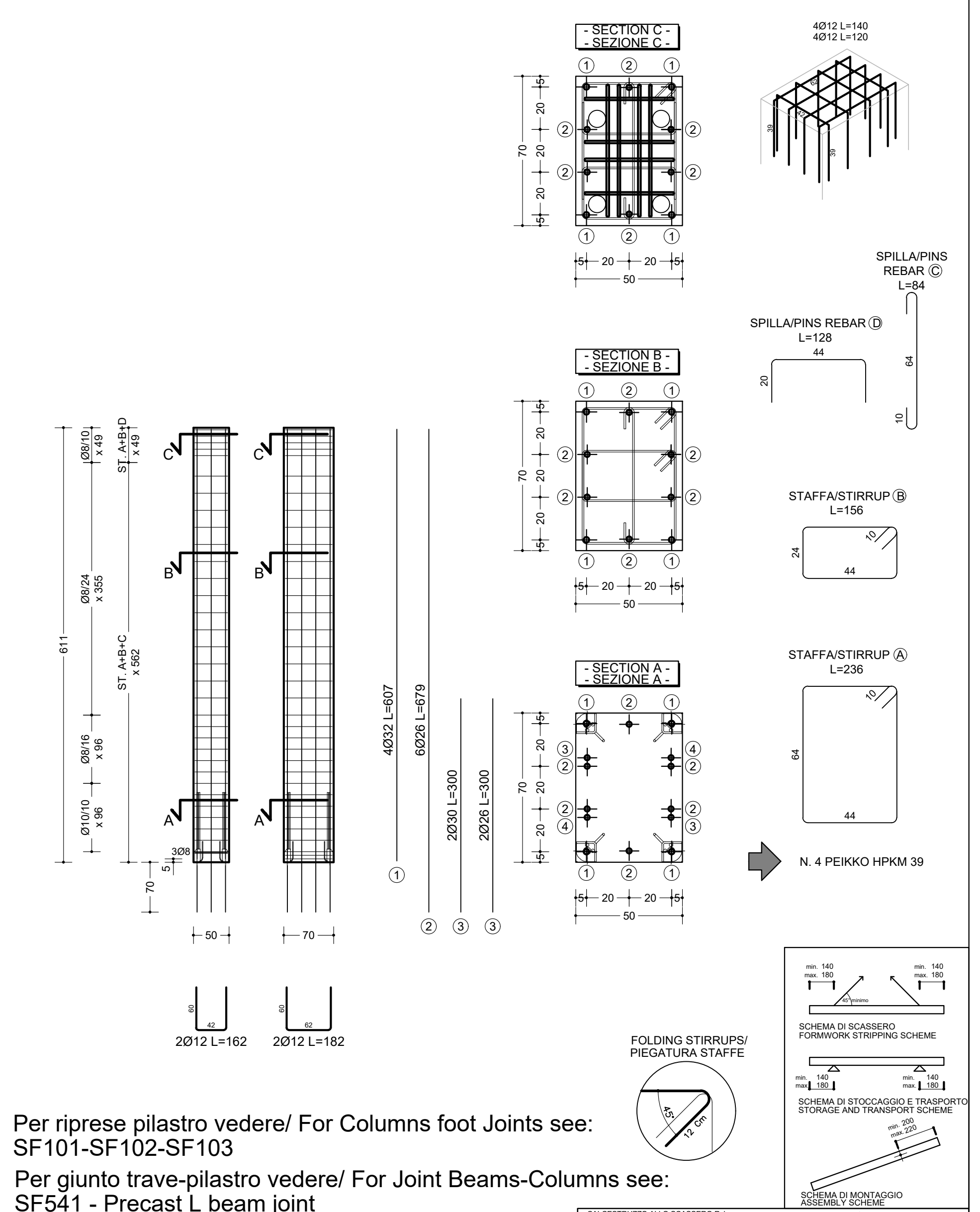
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4Ø12 L=140
4Ø12 L=120
SPILLA/PINS
REBAR Ⓒ
L=84
SPILLA/PINS REBAR Ⓓ
L=128
- SECTION B -
- SEZIONE B -
STAFFA/STIRRUP Ⓑ
L=156
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=236
N. 4 PEIKKO HPKM 39
Ø8/10 x 49
ST. A+B+D x 49
Ø8/24 x 355
ST. A+B+C x 562
Ø8/16 x 96
Ø10/10 x 96
611
4Ø32 L=607
6Ø26 L=679
2Ø30 L=300
2Ø26 L=300
2Ø12 L=162
2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast L beam joint

SCP 50x70 Joint: R07 - 2,53% (FILO 24)
SCP 50x70 Joint: R08 - 2,53% (FILO 24)

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

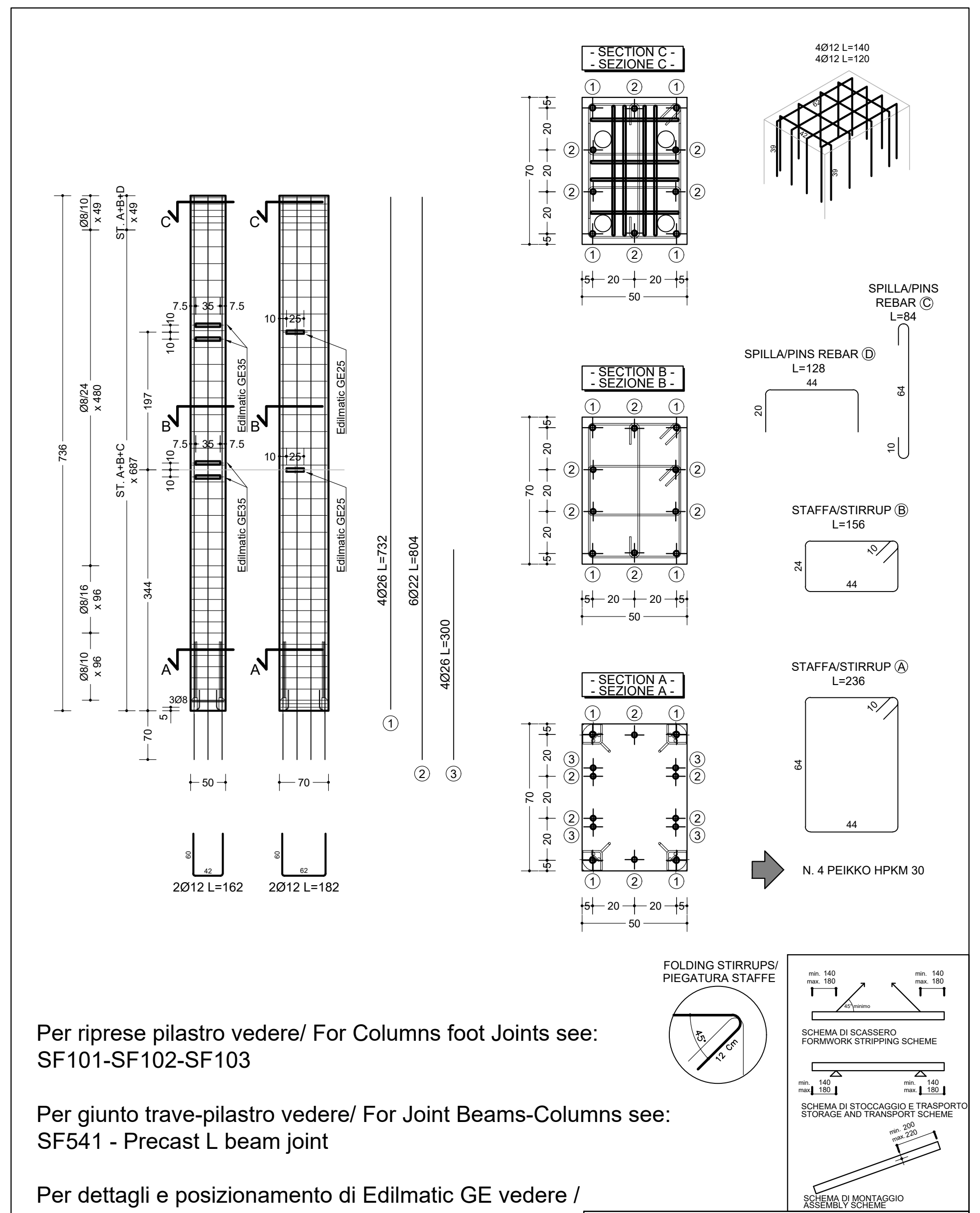
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4Ø12 L=140
4Ø12 L=120
SPILLA/PINS
REBAR Ⓒ
L=84
SPILLA/PINS REBAR Ⓓ
L=128
- SECTION B -
- SEZIONE B -
STAFFA/STIRRUP Ⓑ
L=156
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=236
N. 4 PEIKKO HPKM 30
Ø8/10 x 49
ST. A+B+D x 49
Ø8/24 x 480
ST. A+B+C x 687
Ø8/16 x 96
Ø8/10 x 96
736
197
344
Edilmatic GE35
Edilmatic GE25
4Ø26 L=732
6Ø22 L=804
4Ø26 L=300
2Ø12 L=162
2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast L beam joint

Per dettagli e posizionamento di Edilmatic GE vedere /
For Edilmatic GE details and positioning see:
SF510 - Steelworks typical details

SCP 50x70 Joint: R05 - 1.86%

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

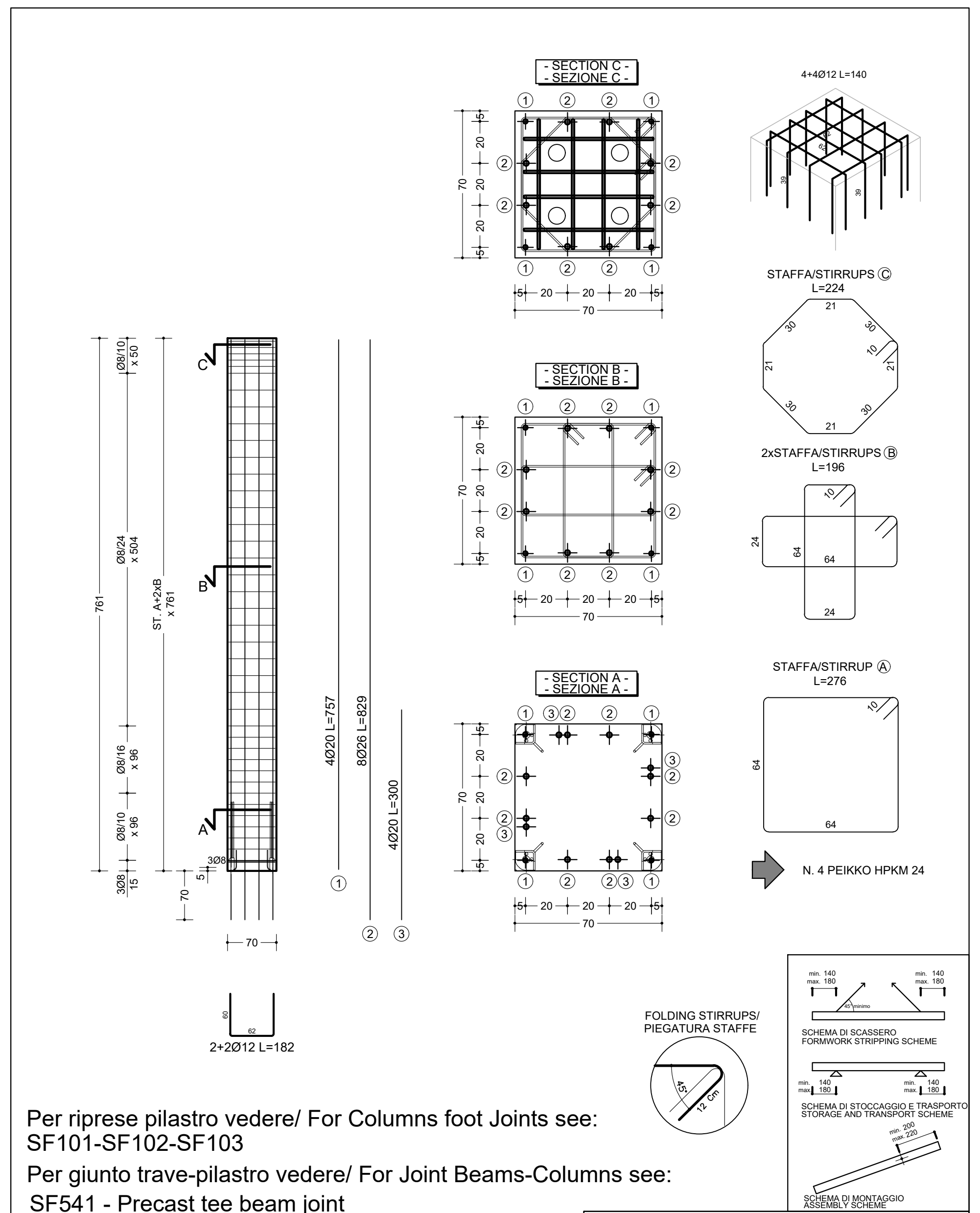
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4+4Ø12 L=140
STAFFA/STIRRUPS Ⓒ
L=224
- SECTION B -
- SEZIONE B -
2xSTAFFA/STIRRUPS Ⓑ
L=196
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=276
N. 4 PEIKKO HPKM 24
Ø8/10 x 50
Ø8/24 x 504
ST. A+2xB x 761
Ø8/16 x 96
Ø8/10 x 96
3Ø8 15
761
4Ø20 L=757
8Ø26 L=829
4Ø20 L=300
2+2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast tee beam joint

SCP. 70x70 Joint: R01 - 1.38%

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

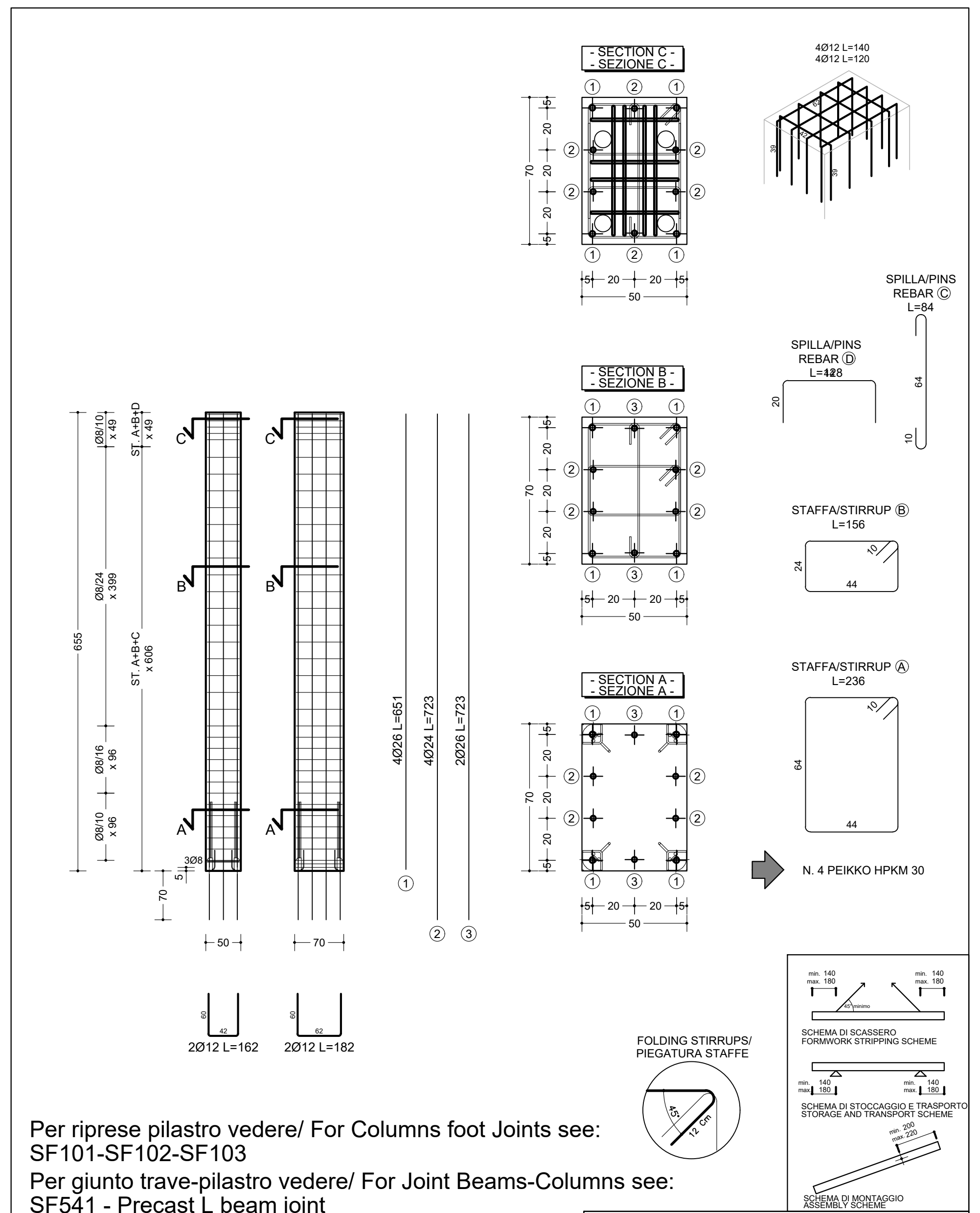
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4Ø12 L=140
4Ø12 L=120
SPILLA/PINS
REBAR Ⓒ
L=84
SPILLA/PINS
REBAR Ⓓ
L=128
- SECTION B -
- SEZIONE B -
STAFFA/STIRRUP Ⓑ
L=156
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=236
N. 4 PEIKKO HPKM 30
Ø8/10 x 49
ST. A+B+D x 49
Ø8/24 x 399
ST. A+B+C x 606
Ø8/16 x 96
Ø8/10 x 96
655
4Ø26 L=651
4Ø24 L=723
2Ø26 L=723
2Ø12 L=162
2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast L beam joint

SCP 50x70 Joint: R03 - 1.43% (FILO 23)
SCP 50x70 Joint: R04 - 1.43% (FILO 23)

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

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Ø≤	8	10	12	14	16	18	20	22	26	30

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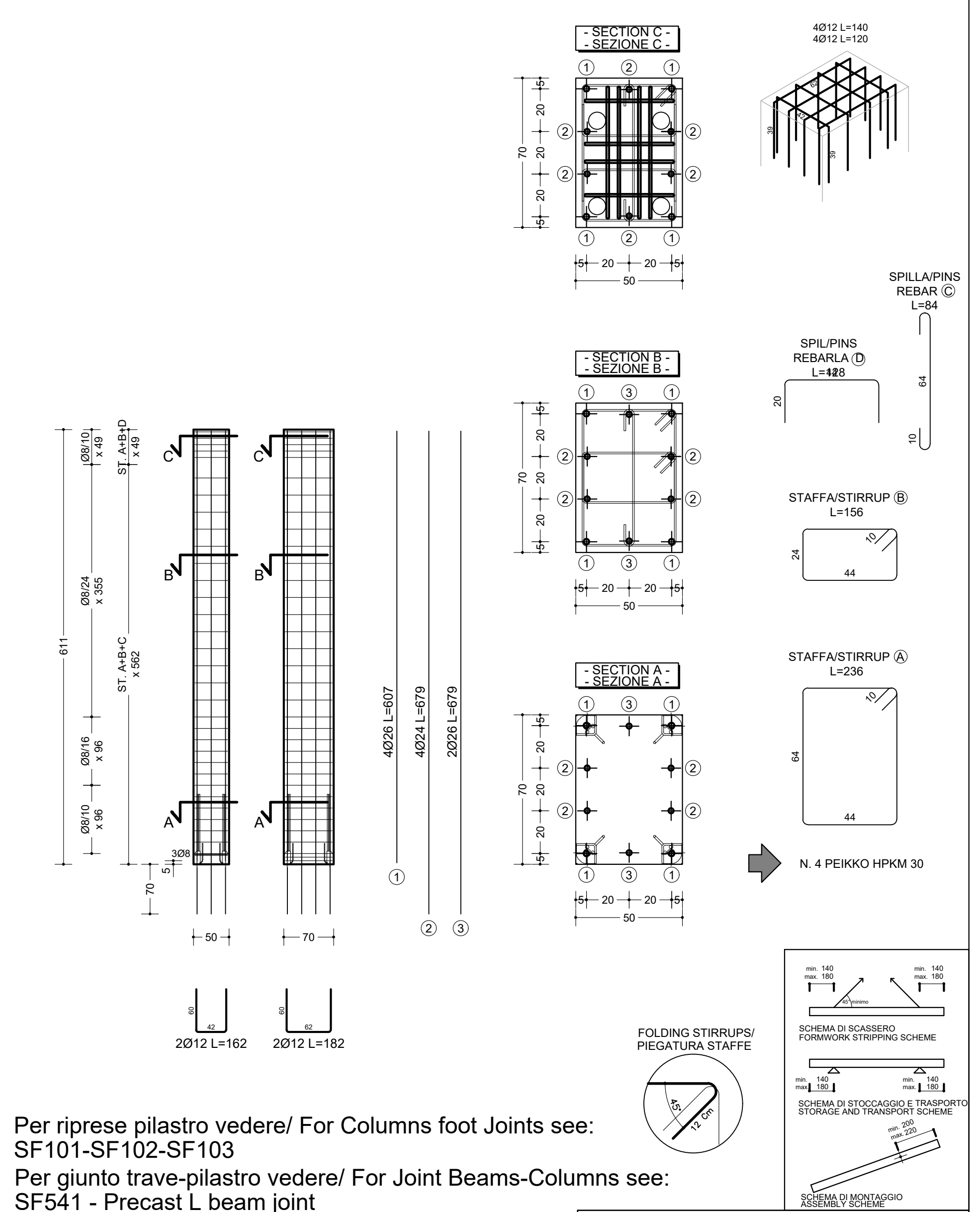
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


- SECTION C -
- SEZIONE C -
4Ø12 L=140
4Ø12 L=120
SPILLA/PINS
REBAR Ⓒ
L=84
SPIL/PINS
REBARLA Ⓓ
L=128
- SECTION B -
- SEZIONE B -
STAFFA/STIRRUP Ⓑ
L=156
- SECTION A -
- SEZIONE A -
STAFFA/STIRRUP Ⓐ
L=236
N. 4 PEIKKO HPKM 30
Ø8/10 x 49
ST. A+B+D x 49
Ø8/24 x 355
ST. A+B+C x 562
Ø8/16 x 96
Ø8/10 x 96
611
4Ø26 L=607
4Ø24 L=679
2Ø26 L=679
2Ø12 L=162
2Ø12 L=182
FOLDING STIRRUPS/
PIEGATURA STAFFE
SCHEMA DI SCASSERO
FORMWORK STRIPPING SCHEME
SCHEMA DI STOCCAGGIO E TRASPORTO
STORAGE AND TRANSPORT SCHEME
SCHEMA DI MONTAGGIO
ASSEMBLY SCHEME

Per riprese pilastro vedere/ For Columns foot Joints see:
SF101-SF102-SF103

Per giunto trave-pilastro vedere/ For Joint Beams-Columns see:
SF541 - Precast L beam joint

SCP 50x70 Joint: R03 - 1.43% (FILO 24)

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
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ACCIAIO AD ADERENZA MIGLIORATA B450 C / STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A / WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO / SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2

General Notes

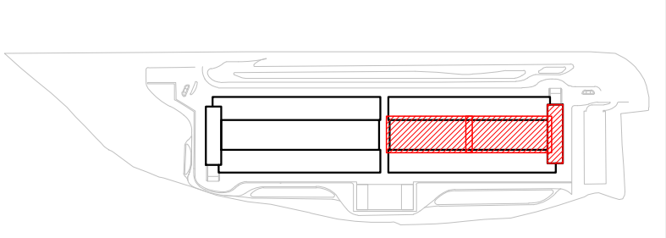
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Precast Columns - Details and Reinforcement

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

Status Code
S5

Project Number
P10424

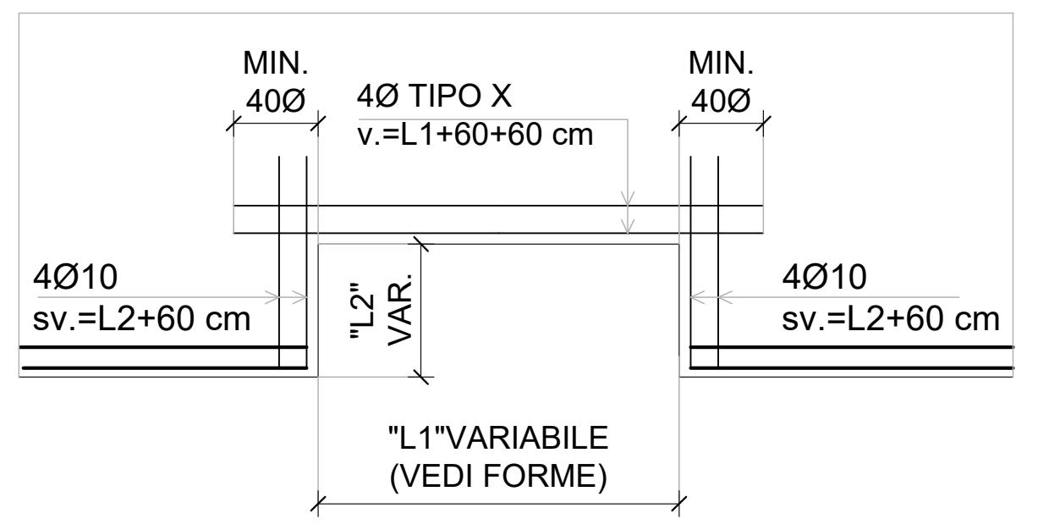
Scale @ A0
-

Revision
P02

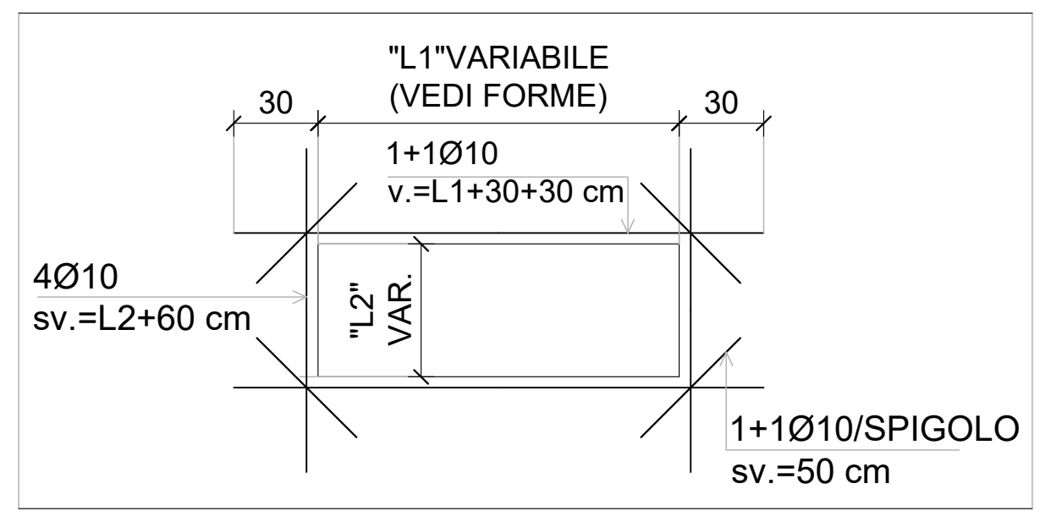
Drawing Number
SF501

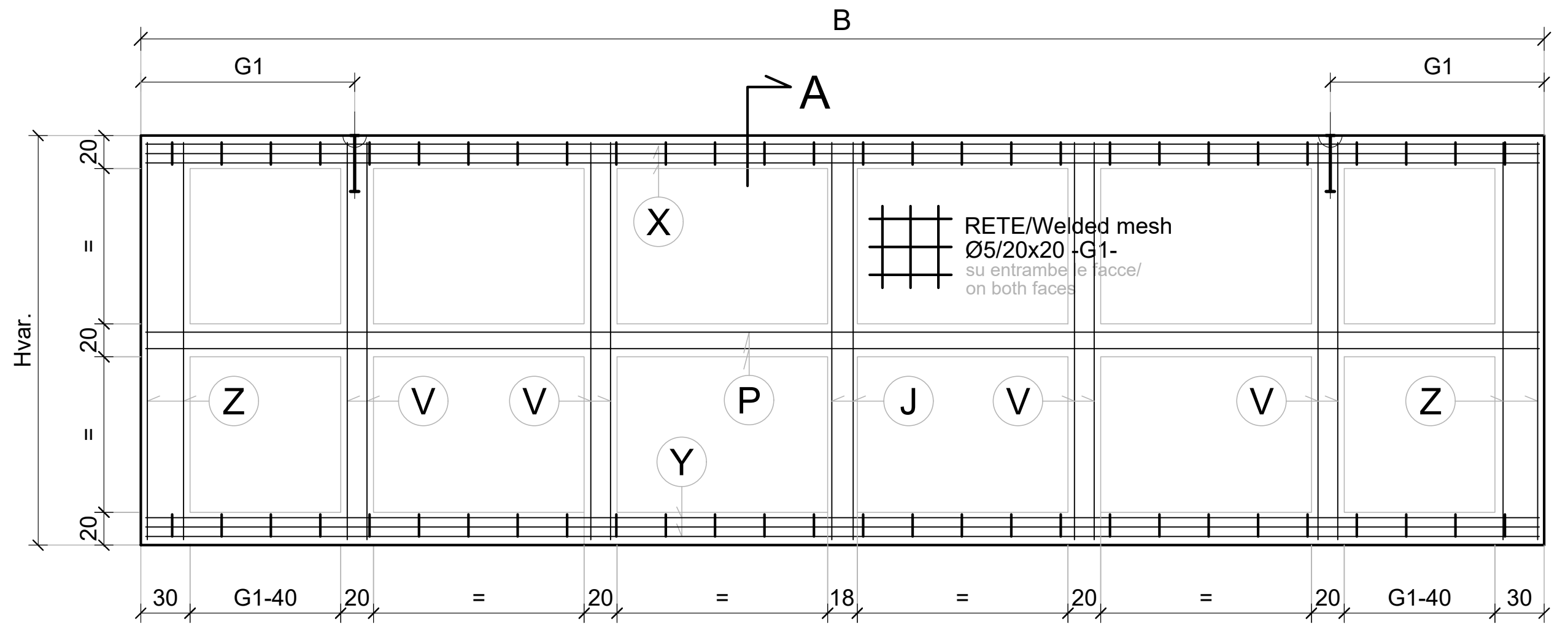
A0 - Do not scale

DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL


MIN. 40Ø
4Ø TIPO X
v.=L1+60+60 cm
MIN. 40Ø
4Ø10
sv.=L2+60 cm
"L2" VAR.
4Ø10
sv.=L2+60 cm
"L1"VARIABILE
(VEDI FORME)

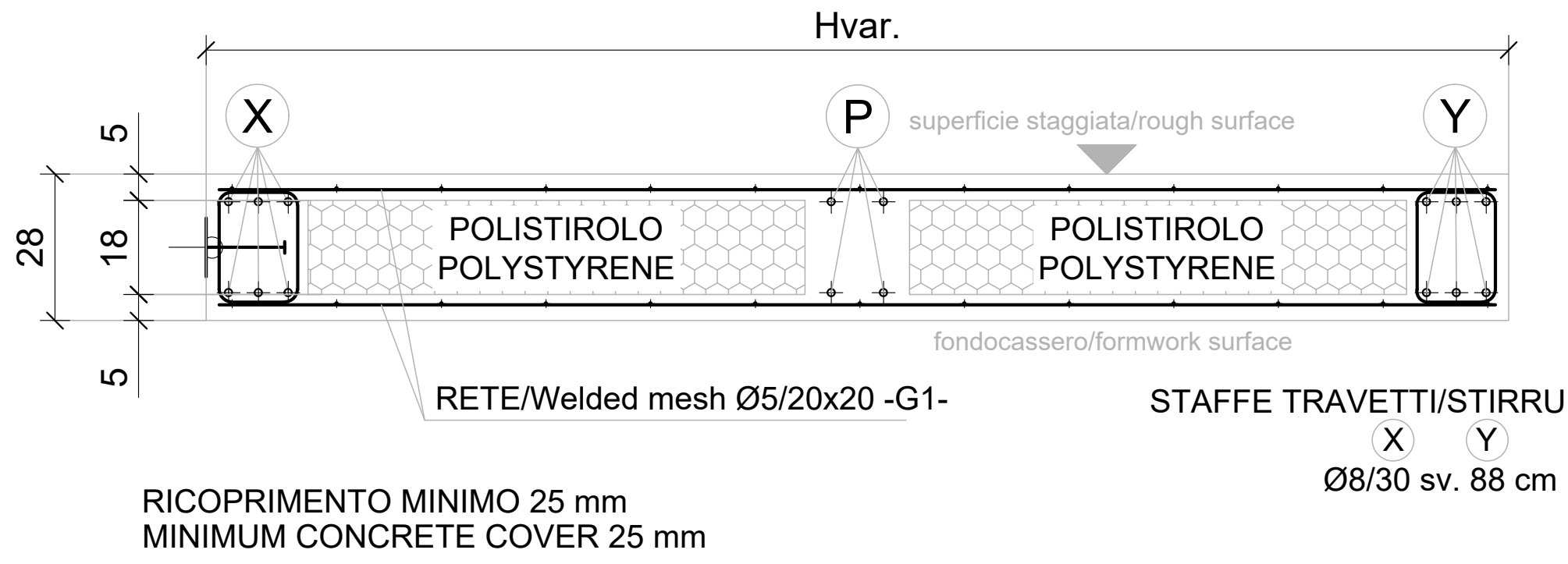
DETTAGLIO ARMATURA INTEGRATIVA PER FINESTRE E PORTE
DETAIL- ADDITIONAL REINFORCEMENT REBAR FOR WINDOWS AND DOORS


"L1"VARIABILE
(VEDI FORME)
30
30
1+1Ø10
v.=L1+30+30 cm
4Ø10
sv.=L2+60 cm
"L2" VAR.
1+1Ø10/SPIGOLO
sv.=50 cm


B
G1
G1
A
RETE/Welded mesh
Ø5/20x20 -G1-
su entrambe le facce/
on both faces
X
Z
V
V
P
J
V
V
Z
Y
Hvar.
20
=
20
=
20
30
G1-40
20
=
20
=
18
=
20
=
20
G1-40
30

ARMATURA/REINFORCEMENT REBARS								
B_{max} [m] (base)	H[m]	X	Y	V	Z	J	P	G1
14.40	2.35	6Ø14	6Ø14	4Ø10	4Ø10	4Ø12	4Ø12	1.60m

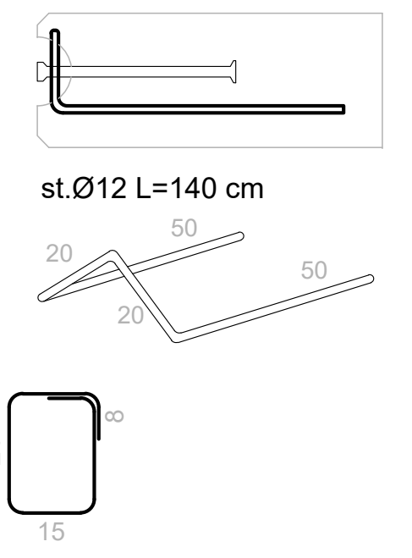
Sezione/Section A


Hvar.
X
P
Y
superficie staggiata/rough surface
5
28
18
5
POLISTIROLO
POLYSTYRENE
POLISTIROLO
POLYSTYRENE
fondocassero/formwork surface
RETE/Welded mesh Ø5/20x20 -G1-

RICOPRIMENTO MINIMO 25 mm
MINIMUM CONCRETE COVER 25 mm

STAFFE TRAVETTI/STIRRUPS JOISTS
X Y
Ø8/30 sv. 88 cm

PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL


st.Ø12 L=140 cm
20
50
50
15

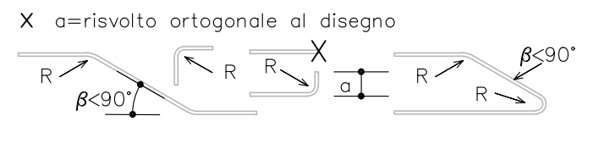
Armatura valida per/Reinforcement for: SWP.28-Lh

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30

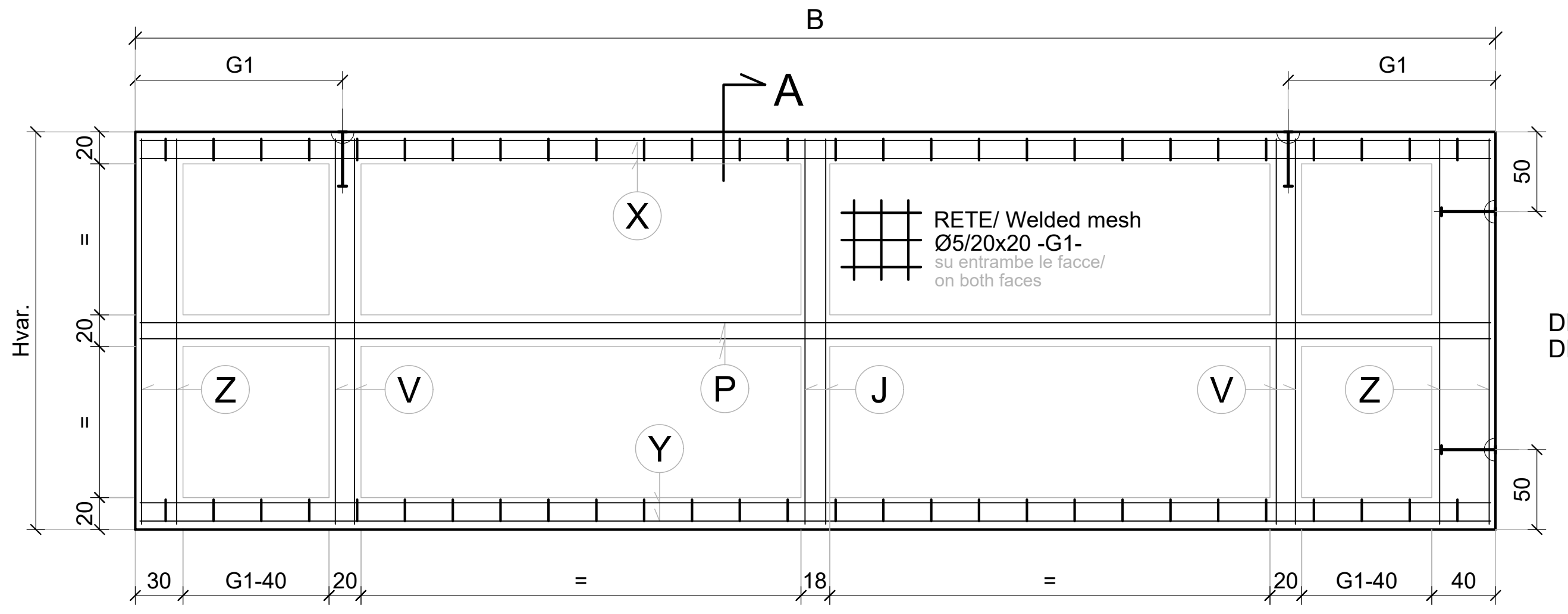

X a=risvolto ortogonale al disegno
R
β<90°
R
R
a
R
R
β<90°

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A /Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{GT})_K \geq$ 2.5%

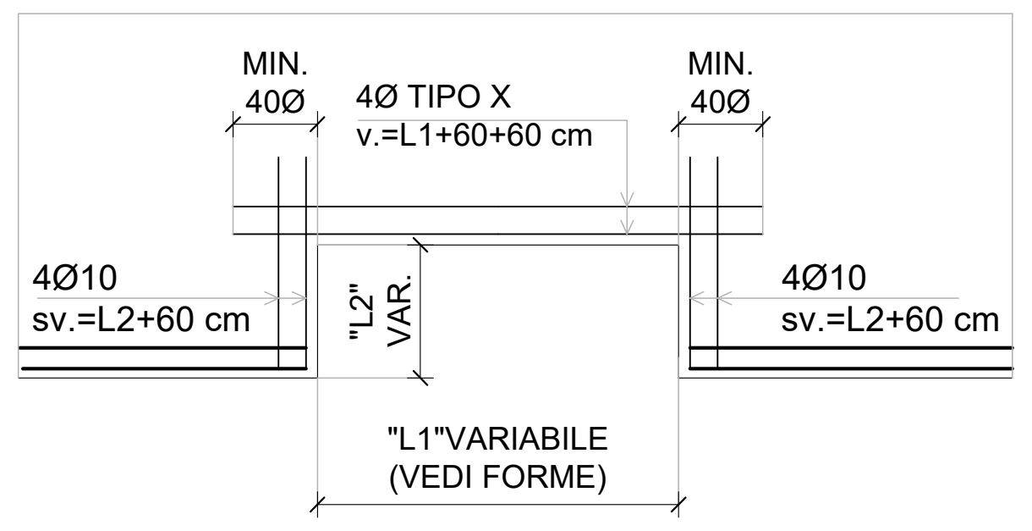
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMMITTENTE
COMPASS_DATA HALL BUILDING
PRATICA
OGGETTO
PANNELLO ALLEGGERITO sp.28 cm
DATA

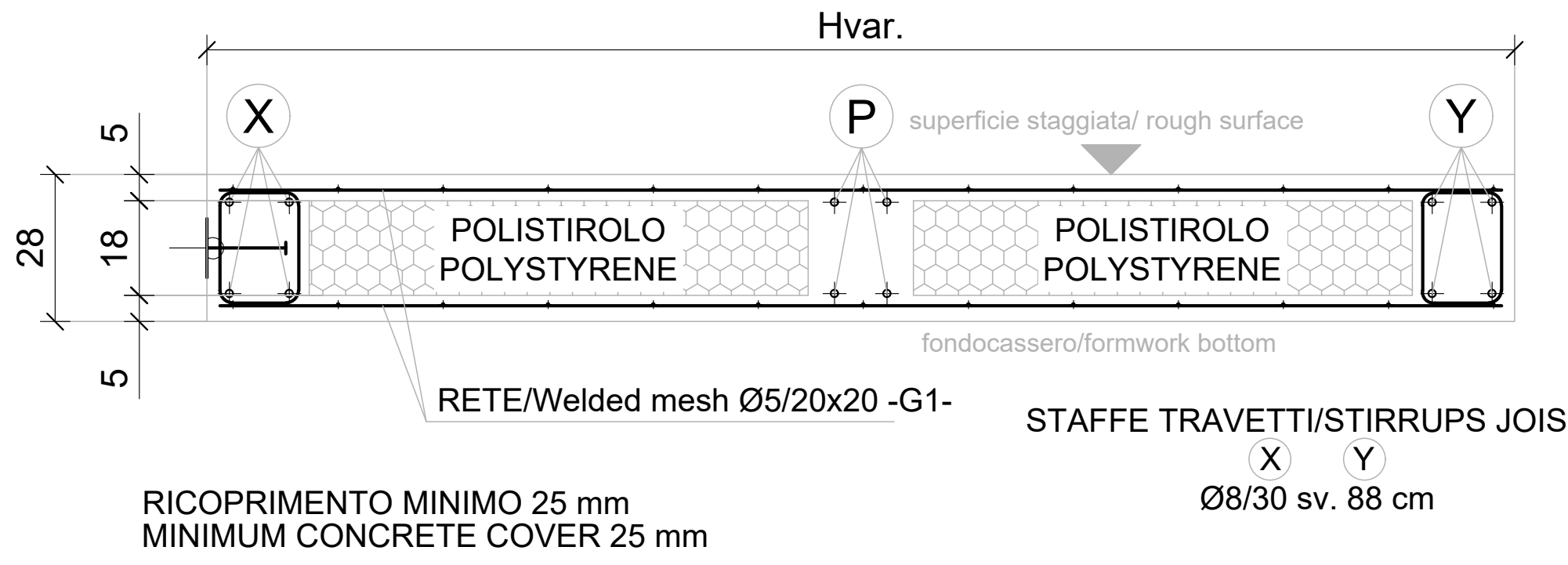

B
G1
G1
A
X
RETE/ Welded mesh
Ø5/20x20 -G1-
su entrambe le facce/
on both faces
Z
V
P
J
V
Z
Y
Hvar.
20
=
20
=
20
50
50
30
G1-40
20
=
18
=
20
G1-40
40

ARMATURA/REINFORCEMENT REBARS								
B_{max} [m] (base)	H[m]	X	Y	V	Z	J	P	G1
9.77	2.50	4Ø12	4Ø12	4Ø10	4Ø10	4Ø12	4Ø12	1.60m

DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL


MIN. 40Ø
4Ø TIPO X
v.=L1+60+60 cm
MIN. 40Ø
4Ø10
sv.=L2+60 cm
"L2" VAR.
4Ø10
sv.=L2+60 cm
"L1"VARIABILE
(VEDI FORME)

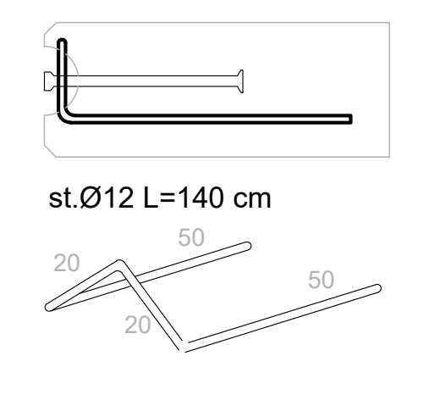
Sezione/Section A


Hvar.
X
P
Y
superficie staggiata/ rough surface
5
28
18
5
POLISTIROLO
POLYSTYRENE
POLISTIROLO
POLYSTYRENE
fondocassero/formwork bottom
RETE/Welded mesh Ø5/20x20 -G1-

RICOPRIMENTO MINIMO 25 mm
MINIMUM CONCRETE COVER 25 mm

STAFFE TRAVETTI/STIRRUPS JOISTS
X Y
Ø8/30 sv. 88 cm

PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL


st.Ø12 L=140 cm
20
50
50
15

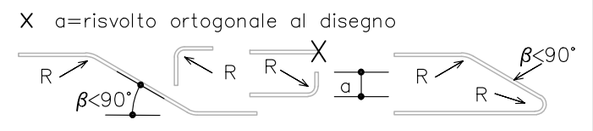
Armatura valida per/Reinforcement for: SWP.28-Lv

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

R =	16	20	30	35	40	72	80	88	130	150
Ø≤	8	10	12	14	16	18	20	22	26	30


X a=risvolto ortogonale al disegno
R
β<90°
R
R
a
R
R
β<90°

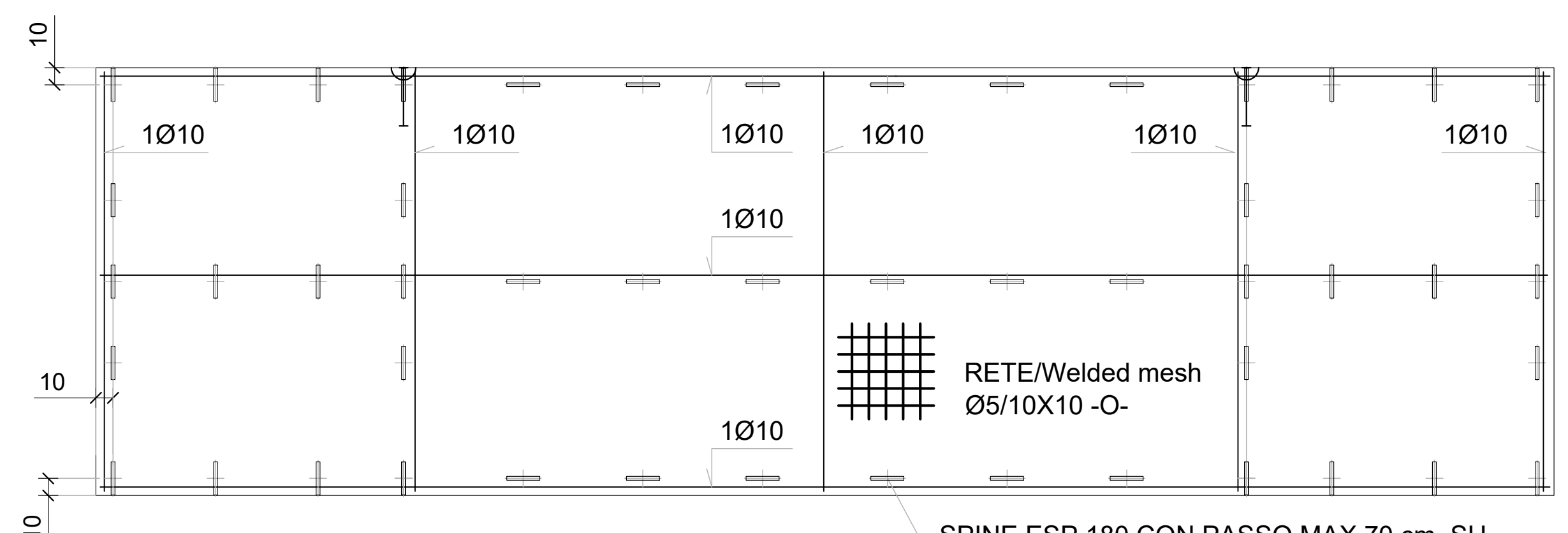
ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A /Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMMITTENTE
COMPASS_DATA HALL BUILDING
PRATICA
OGGETTO
PANNELLO ALLEGGERITO sp.28 cm
DATA

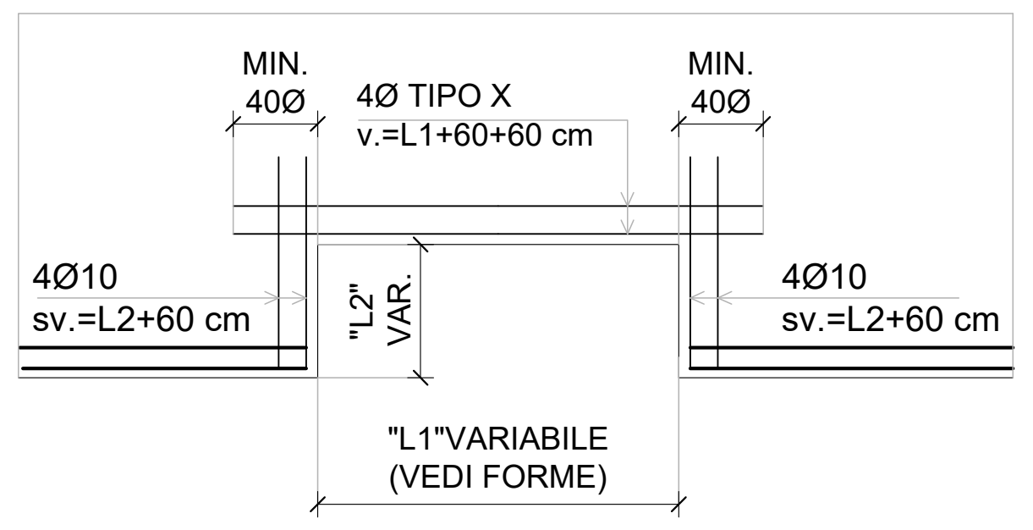
PER DETTAGLIO COLLEGAMENTO PANNELLO VEDERE TAVOLA SF507 E SB201
PRECAST PANELS SUPPORT DETAIL IS AVAILABLE ON DRAWING
NUMBERS SF507 AND SB201


10
1Ø10
1Ø10
1Ø10
1Ø10
1Ø10
1Ø10
1Ø10
10
1Ø10
RETE/Welded mesh
Ø5/10X10 -O-
10

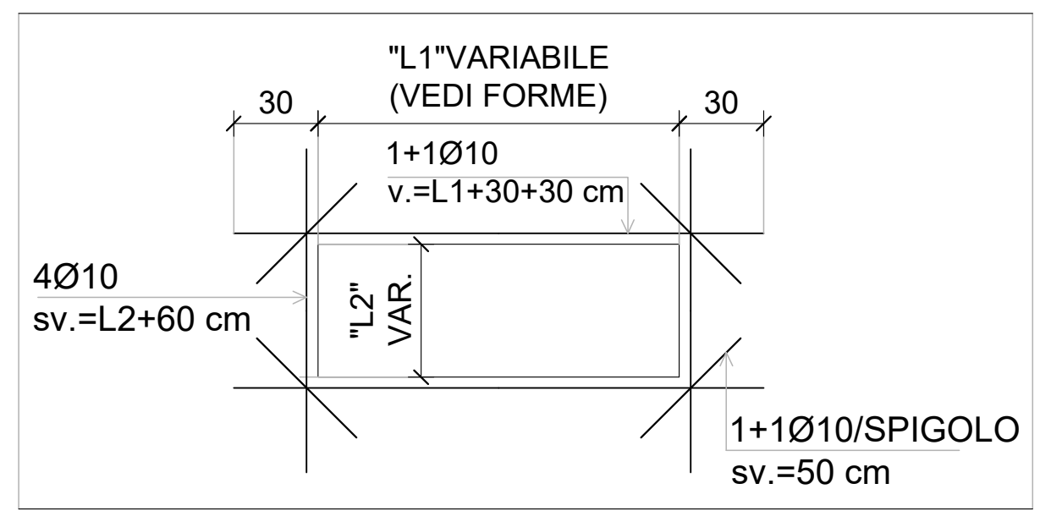
PIANTA ARMATURA PRIMO GETTO
FIRST POURING PLAN

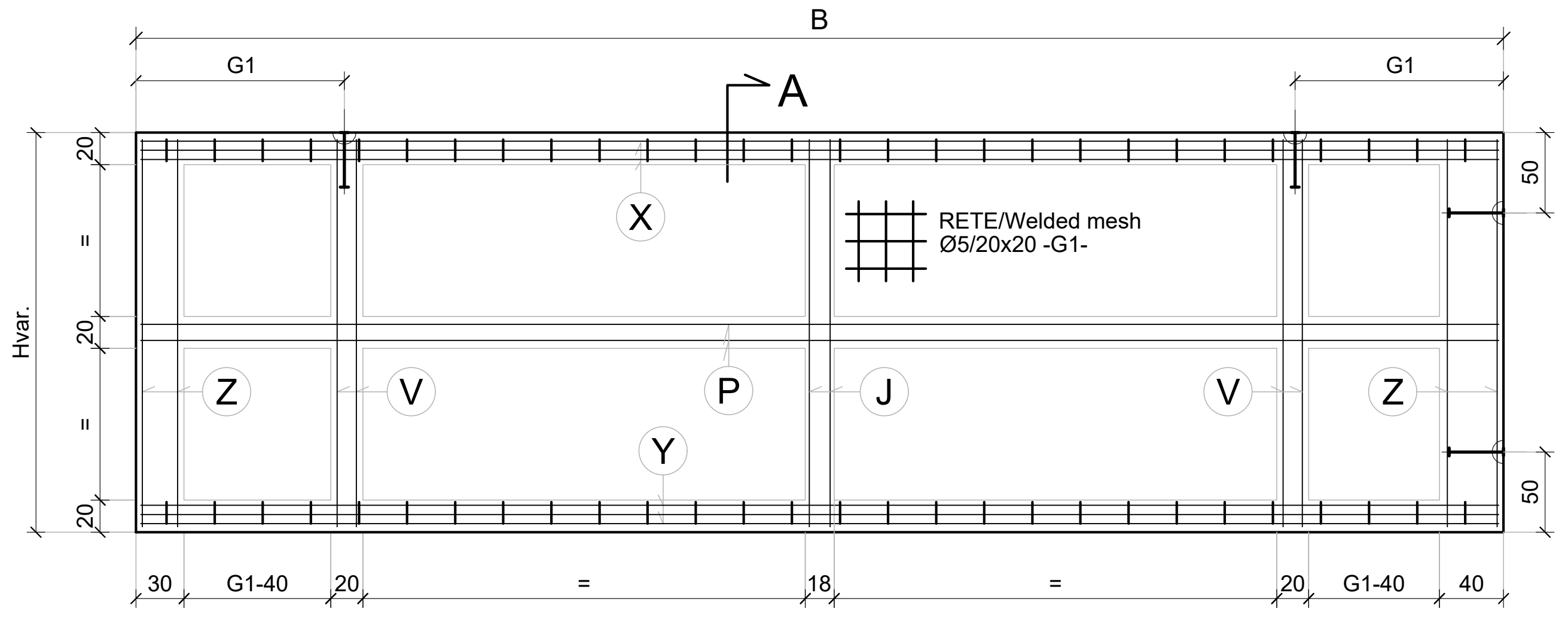
SPINE ESP 180 CON PASSO MAX 70 cm SU TUTTI I TRAVETTI / PIN ESP 180 WHEEL BASE 70 cm ON ALL JOISTS

DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL


MIN. 40Ø
4Ø TIPO X
v.=L1+60+60 cm
MIN. 40Ø
4Ø10
sv.=L2+60 cm
"L2" VAR.
4Ø10
sv.=L2+60 cm
"L1"VARIABILE
(VEDI FORME)

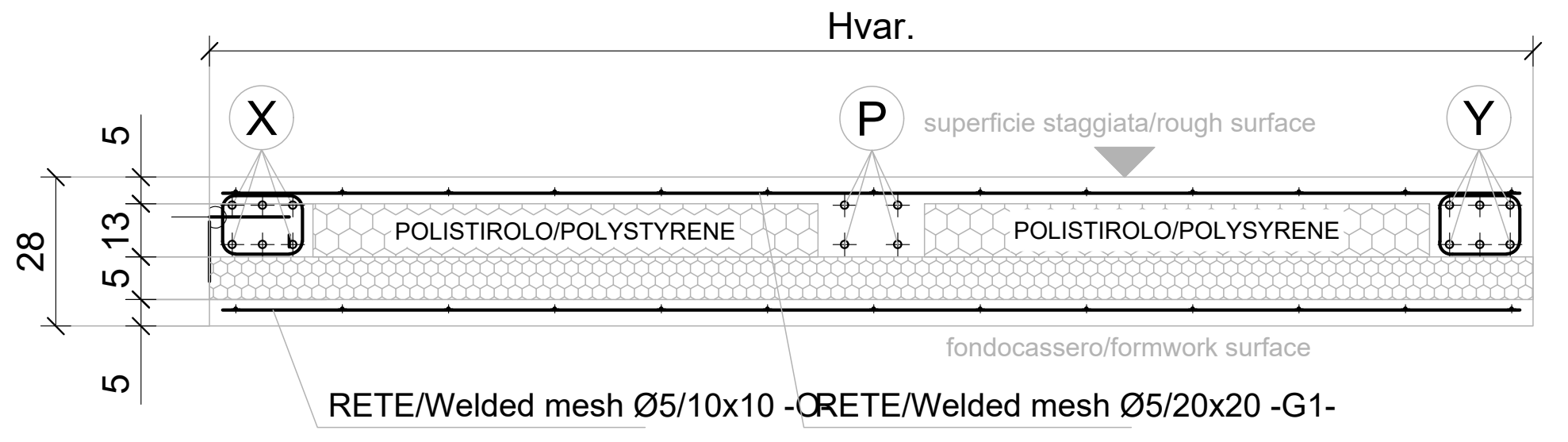
DETTAGLIO ARMATURA INTEGRATIVA PER FINESTRE E PORTE
DETAIL- ADDITIONAL REINFORCEMENT REBAR FOR WINDOWS AND DOORS


"L1"VARIABILE
(VEDI FORME)
30
30
1+1Ø10
v.=L1+30+30 cm
4Ø10
sv.=L2+60 cm
"L2" VAR.
1+1Ø10/SPIGOLO
sv.=50 cm


B
G1
G1
A
X
RETE/Welded mesh
Ø5/20x20 -G1-
Z
V
P
J
V
Z
Y
Hvar.
20
=
20
=
20
50
50
30
G1-40
20
=
18
=
20
G1-40
40

ARMATURA/REINFORCEMENT REBARS								
B_{max} [m] (base)	H[m]	X	Y	V	Z	J	P	G1
9.77	2.50	6Ø12	6Ø12	4Ø10	4Ø10	4Ø12	4Ø12	1.60m

Sezione/Section A

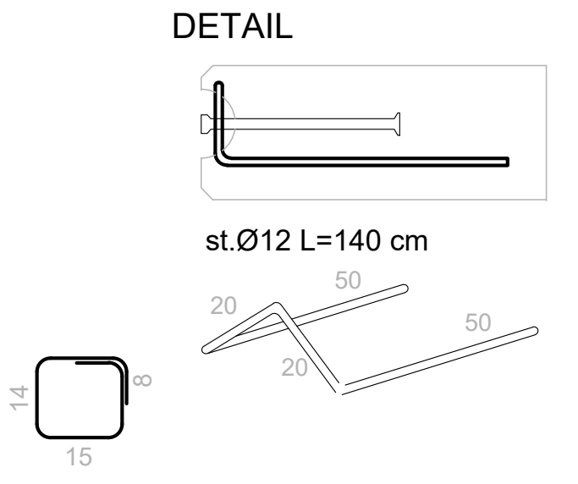

Hvar.
X
P
Y
superficie staggiata/rough surface
5
28
13
5
5
POLISTIROLO/POLYSTYRENE
POLISTIROLO/POLYSTYRENE
fondocassero/formwork surface

RETE/Welded mesh Ø5/10x10 -O- RETE/Welded mesh Ø5/20x20 -G1-

STAFFE TRAVETTI/STIRRUPS JOISTS
X Y
Ø8/30 sv. 74 cm

RICOPRIMENTO MINIMO 25 mm
MINIMUM CONCRETE COVER 25 mm

PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL


st.Ø12 L=140 cm
20
50
50
15

Armatura valida per/Reinforcement for: SWP.28-Tv

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

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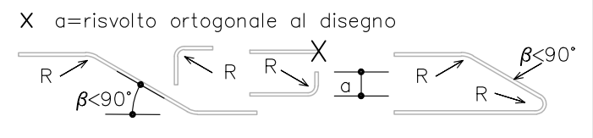
Ø≤	8	10	12	14	16	18	20	22	26	30


X a=risvolto ortogonale al disegno
R
β<90°
R
R
a
R
R
β<90°

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A /Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMMITTENTE
COMPASS_SUPPORT BUILDING
PRATICA
OGGETTO
PANNELLO ALLEG. TAGLIO TERMICO sp.28 cm
DATA

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
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7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
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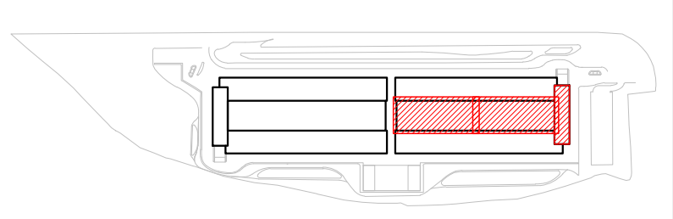
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client
COMPASS datacenters

Architectural / Civil / Structural
MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer
Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Precast Panels - Details and Reinforcement

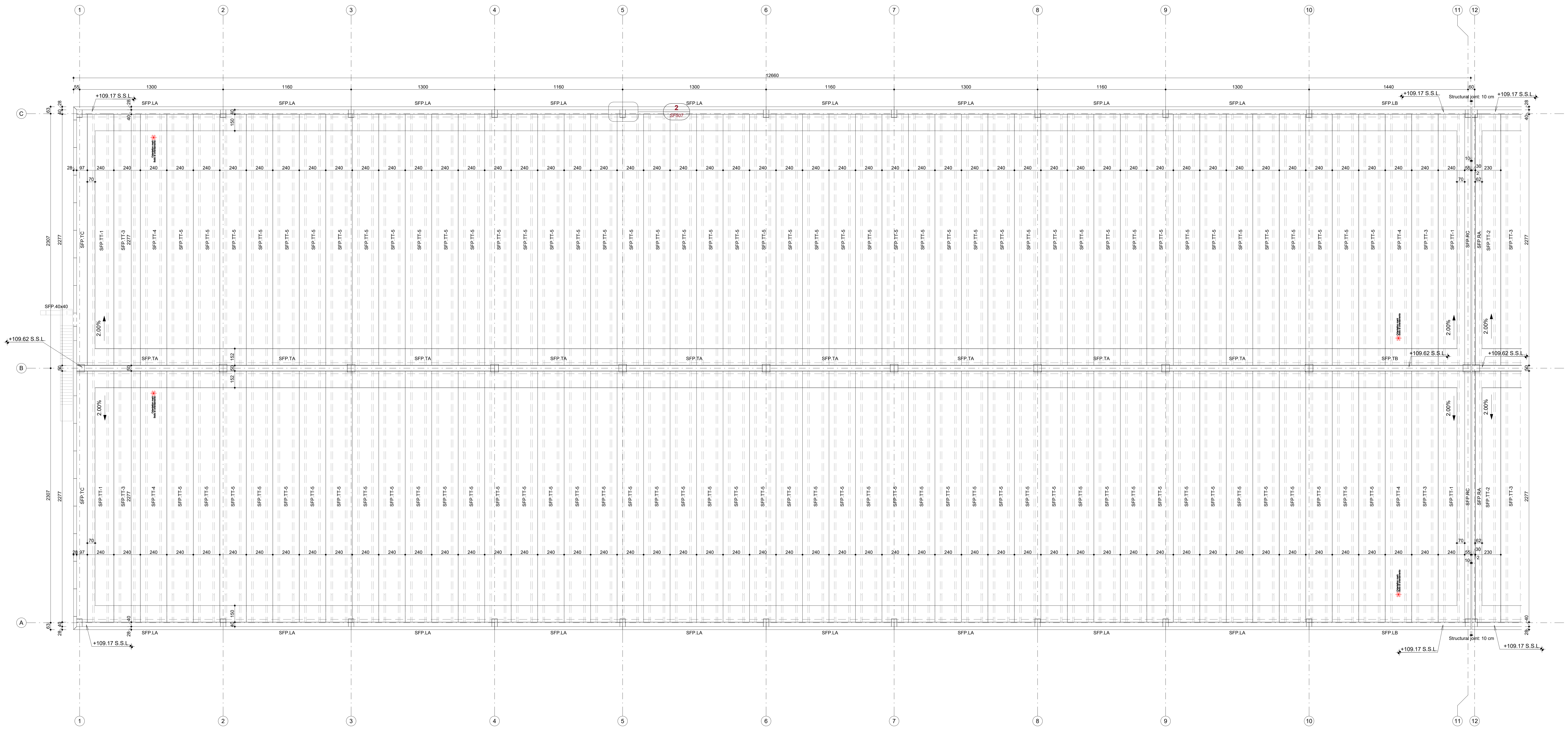
Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural
Status Code
S5

Project Number
P10424
Scale @ A0
-
Revision
P02

Drawing Number
SF502

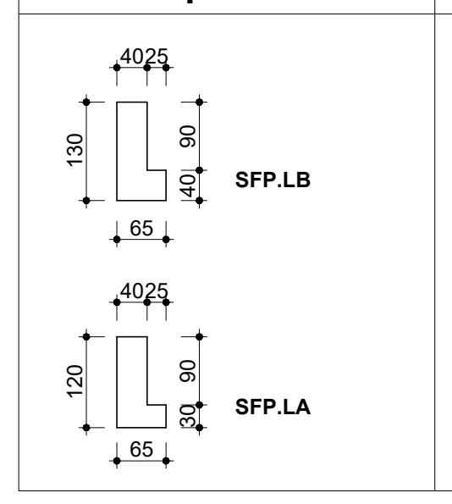
A0 - Do not scale


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
12660
55
1300
1160
1440
60
SFP.LA
SFP.LB
SFP.TA
SFP.TB
SFP.TC
SFP.RC
SFP.RA
SFP.TT-1
SFP.TT-2
SFP.TT-3
SFP.TT-4
SFP.TT-5
SFP.40x40
240
230
97
70
28
40
150
152
2307
2277
2.00%
+109.17 S.S.L.
+109.62 S.S.L.
Structural joint: 10 cm
2
SF507

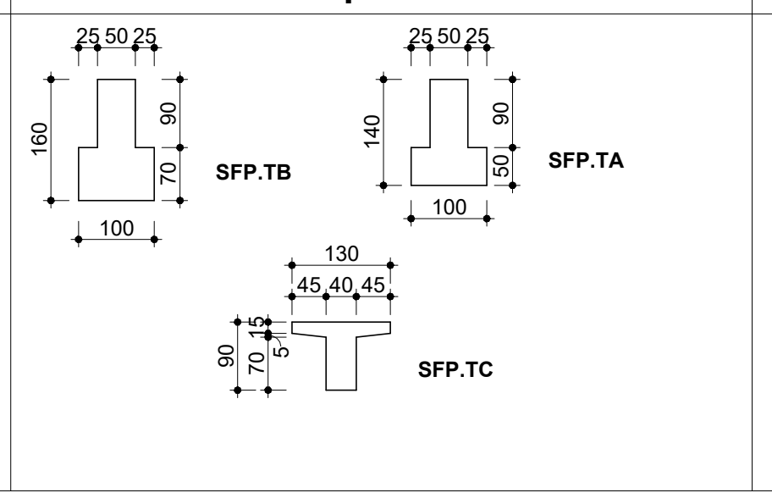
Roof plan - Top view / Vista dall'alto -

1 : 150

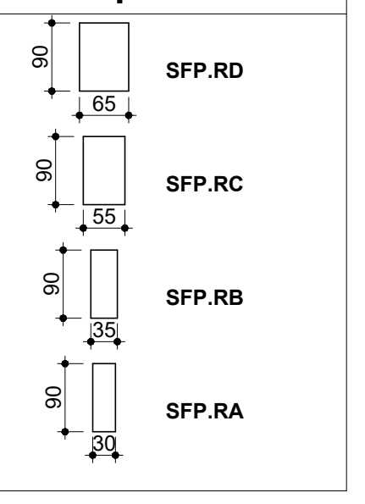
"L" precast beams Travi pref. a "L"


4025
130
90
40
65
SFP.LB
4025
120
90
30
65
SFP.LA

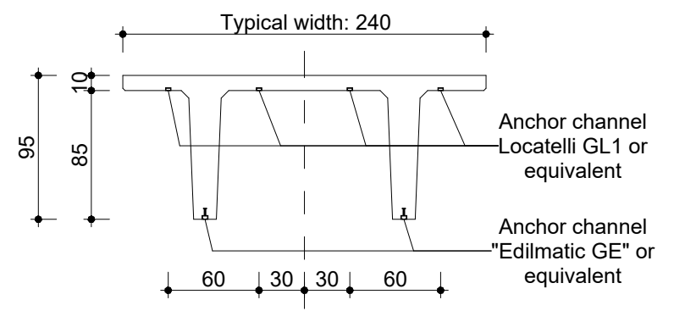
"Tee" precast beams Travi pref. a "T"


25 50 25
160
90
70
100
SFP.TB
25 50 25
140
90
50
100
SFP.TA
130
45 40 45
90
70
15
5
SFP.TC

Rect. precast beams Travi pref. rett.


90
65
SFP.RD
90
55
SFP.RC
90
35
SFP.RB
90
30
SFP.RA

Double "Tee" precast beams Tegoli "TT"


Typical width: 240
10
95
85
Anchor channel
Locatelli GL1 or
equivalent
Anchor channel
"Edilmatic GE" or
equivalent
60
30
30
60

Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

Ga Plans Legend / Legenda Carpenteria

▆	Cast in place concrete section element / Sezione elementi gettati in opera
▒	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
▨	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
⊕	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

General Notes

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Note generali

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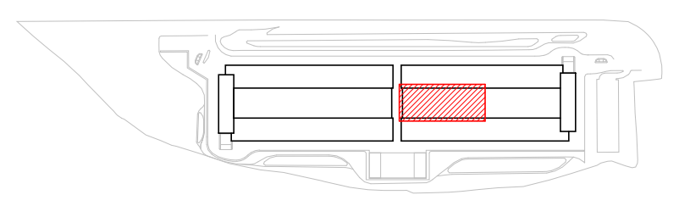
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150
0
150
300
450
600
N

SCALE 1:150

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Roof Plan
Sector DH-3&DH-4

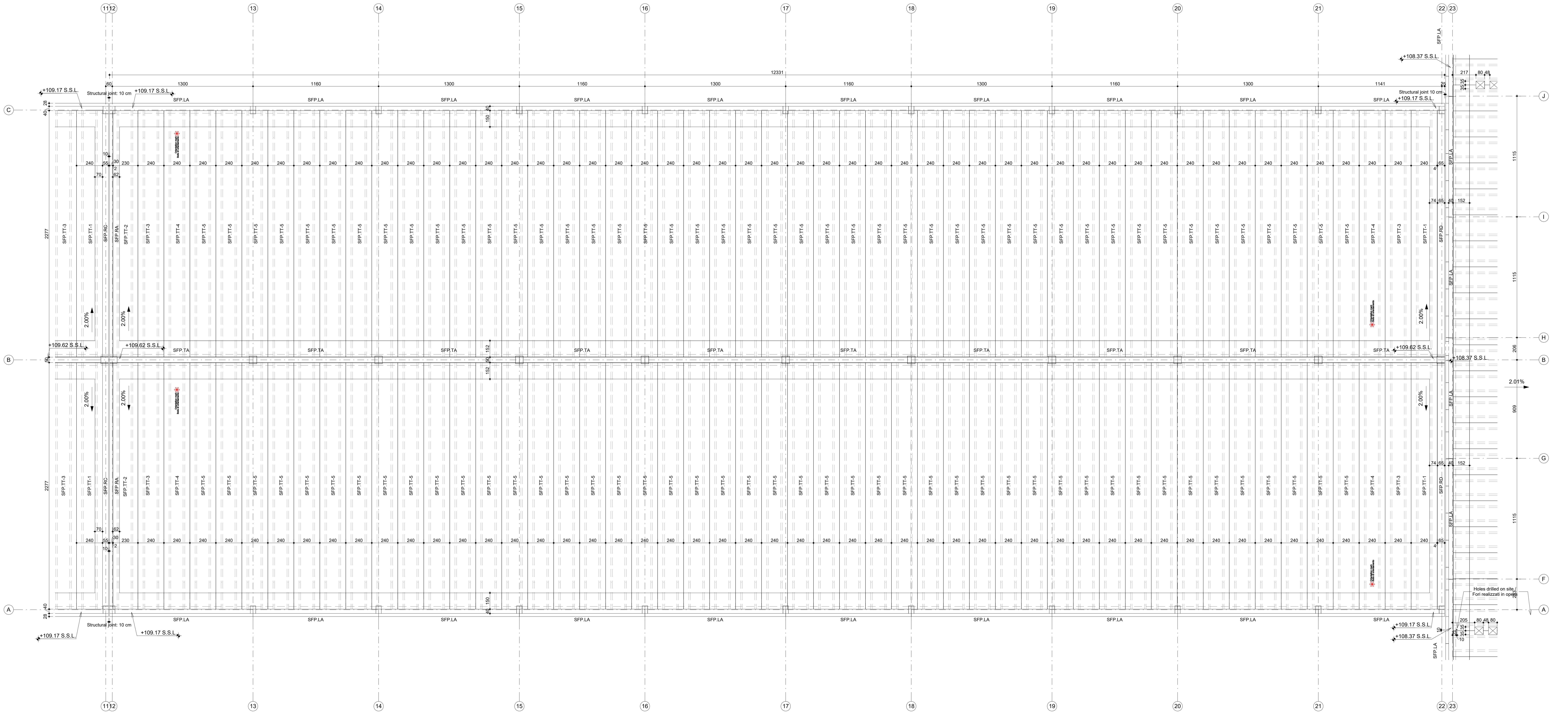
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:150**	**P02**

Drawing Number
SF104

A0 - Do not scale


11
12
13
14
15
16
17
18
19
20
21
22
23
C
B
A
J
I
H
G
F
12331
1300
1160
1141
+109.17 S.S.L.
+109.62 S.S.L.
+108.37 S.S.L.
Structural joint: 10 cm
Structural joint 10 cm
SFP.LA
SFP.TA
SFP.TT-1
SFP.TT-2
SFP.TT-3
SFP.TT-4
SFP.TT-5
SFP.RC
SFP.RA
SFP.RD
240
230
2277
1115
2.00%
2.01%
Orientation mark
Bollo di orientamento
Holes drilled on site /
Fori realizzati in opera

Roof plan - Top view / Vista dall'alto -

1 : 150

General Notes

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Note generali

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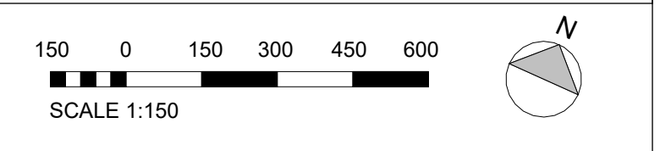
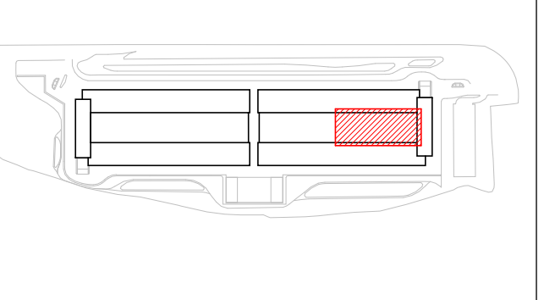
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.


150
0
150
300
450
600
N

SCALE 1:150

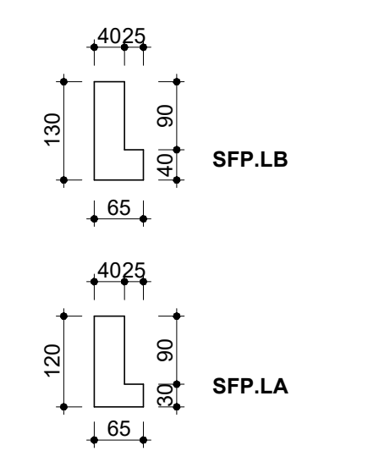
Key Plan



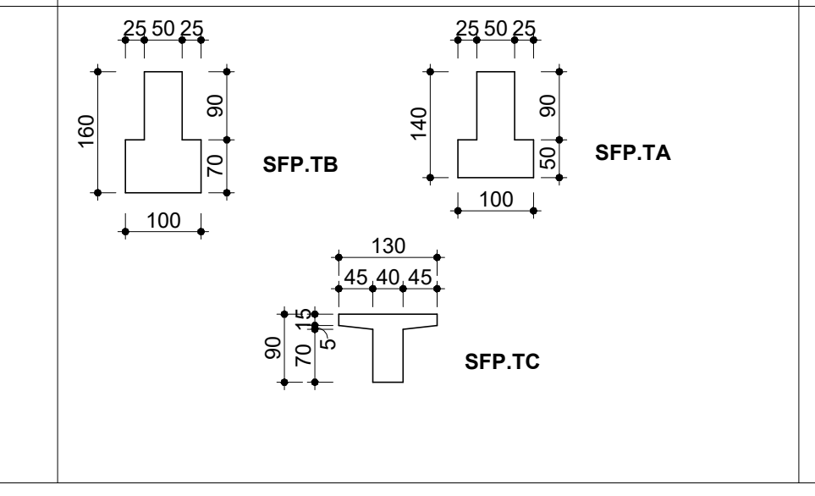
Ga Plans Legend / Legenda Carpenteria

▇	Cast in place concrete section element / Sezione elementi gettati in opera
▒	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
☐	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

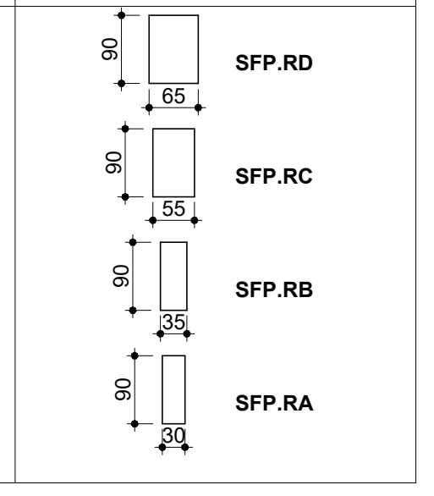
"L" precast beams Travi pref. a "L"


40
25
130
90
40
65
SFP.LB
40
25
120
90
30
65
SFP.LA

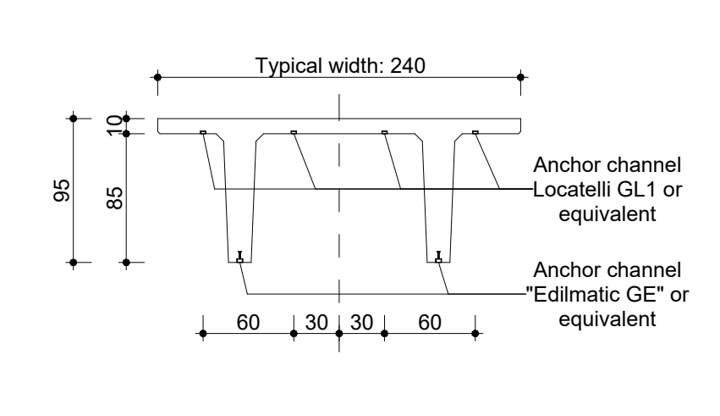
"Tee" precast beams Travi pref. a "T"


25 50 25
160
90
70
100
SFP.TB
25 50 25
140
90
50
100
SFP.TA
130
45 40 45
90
70
15
5
SFP.TC

Rect. precast beams Travi pref. rett.


90
65
SFP.RD
90
55
SFP.RC
90
35
SFP.RB
90
30
SFP.RA

Double "Tee" precast beams Tegoli "TT"


Typical width: 240
10
95
85
60
30
30
60
Anchor channel Locatelli GL1 or equivalent
Anchor channel "Edilmatic GE" or equivalent

Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS™ datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

Superstructure
Roof Plan
Sector DH-1&DH-2

Project Status

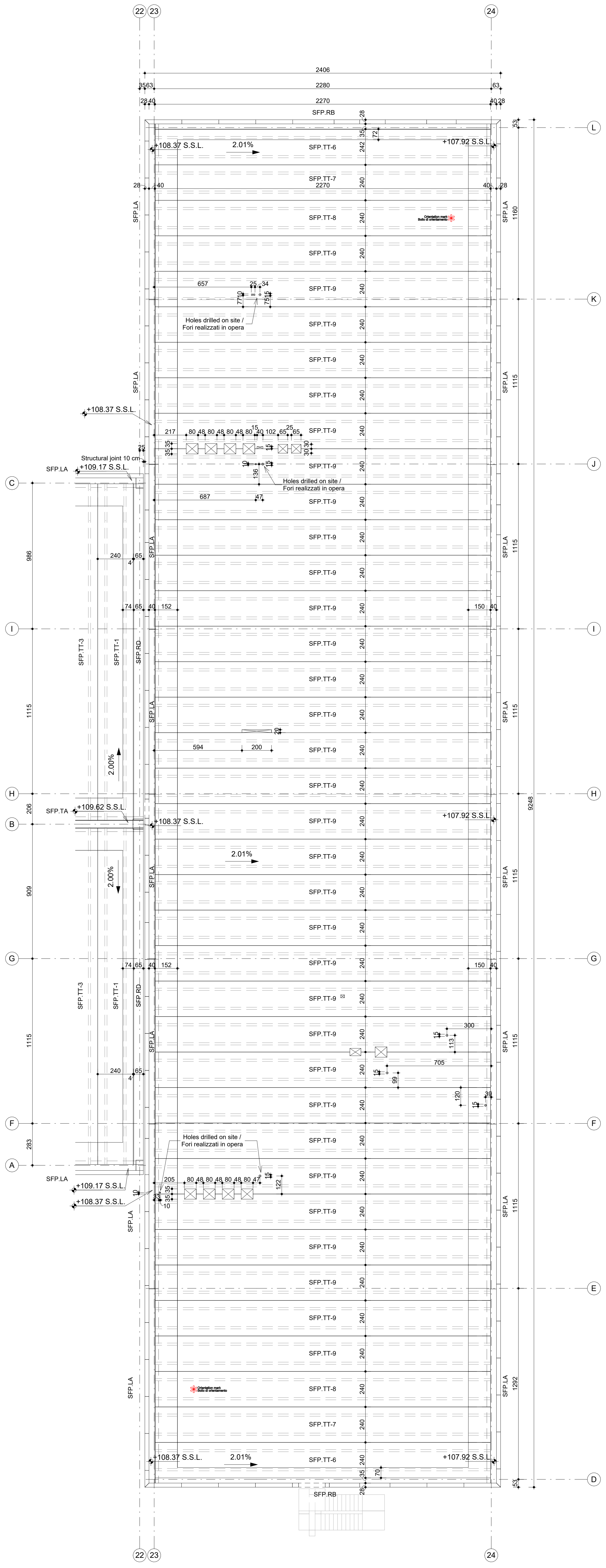
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:150**	**P02**

Drawing Number

SF105


22
23
24
2406
2280
2270
SFP.RB
SFP.TT-6
SFP.TT-7
SFP.TT-8
SFP.TT-9
SFP.LA
SFP.TA
SFP.TT-3
SFP.TT-1
SFP.RD
240
+108.37 S.S.L.
+107.92 S.S.L.
+109.17 S.S.L.
+109.62 S.S.L.
2.01%
2.00%
Holes drilled on site /
Fori realizzati in opera
Structural joint 10 cm
L
K
J
I
H
G
F
E
D
C
B
A
1180
1115
1292
986
206
909
283
9248
657
687
594
200
705
300
152
150

Roof plan - Top view / Vista dall'alto -

1 : 150

General Notes

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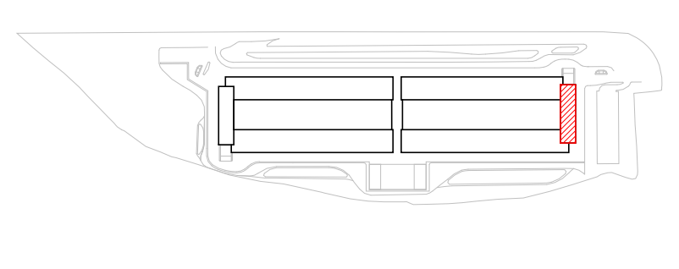
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600

SCALE 1:150

N

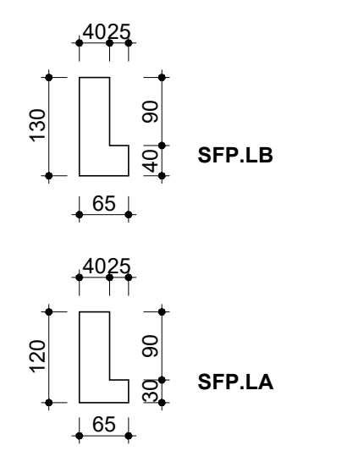
Key Plan



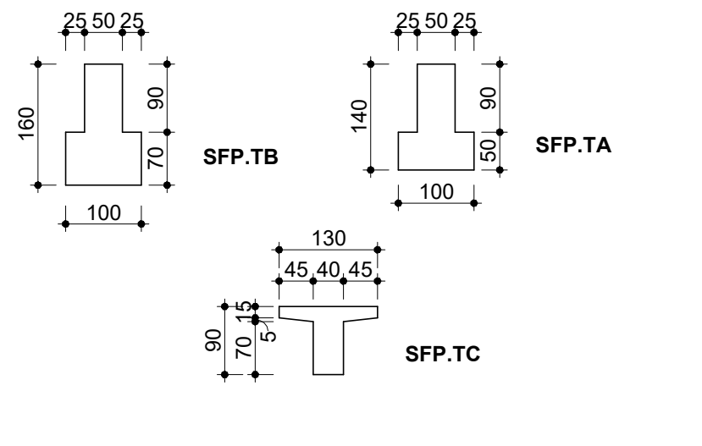
Ga Plans Legend / Legenda Carpenteria

▩	Cast in place concrete section element / Sezione elementi gettati in opera
▨	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
⊿	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

"L" precast beams
Travi pref. a "L"


40
25
130
90
40
65
SFP.LB
40
25
120
90
30
65
SFP.LA

"Tee" precast beams
Travi pref. a "T"


25 50 25
160
90
70
100
SFP.TB
25 50 25
140
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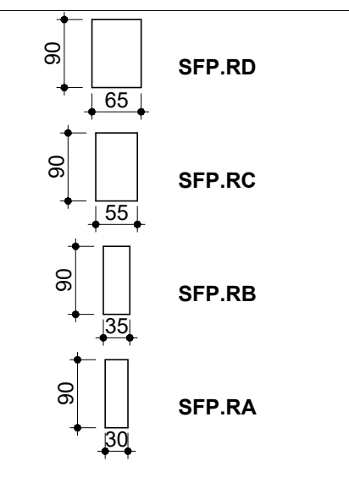
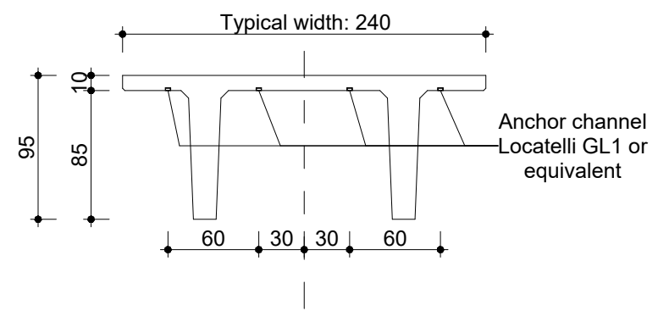
50
100
SFP.TA
130
45 40 45
90
70
15
5
SFP.TC

Rect. precast beams
Travi pref. rett.


90
65
SFP.RD
90
55
SFP.RC
90
35
SFP.RB
90
30
SFP.RA

Double "Tee" precast beams
Tegoli "TT"


Typical width: 240
10
95
85
Anchor channel
Locatelli GL1 or
equivalent
60
30
30
60

Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

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Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
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Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

Superstructure
Roof Plan
Quarter V

Project Status

ISSUED FOR CONSTRUCTION

Discipline: **Structural**

Status Code: **S5**

Project Number: **P10424**

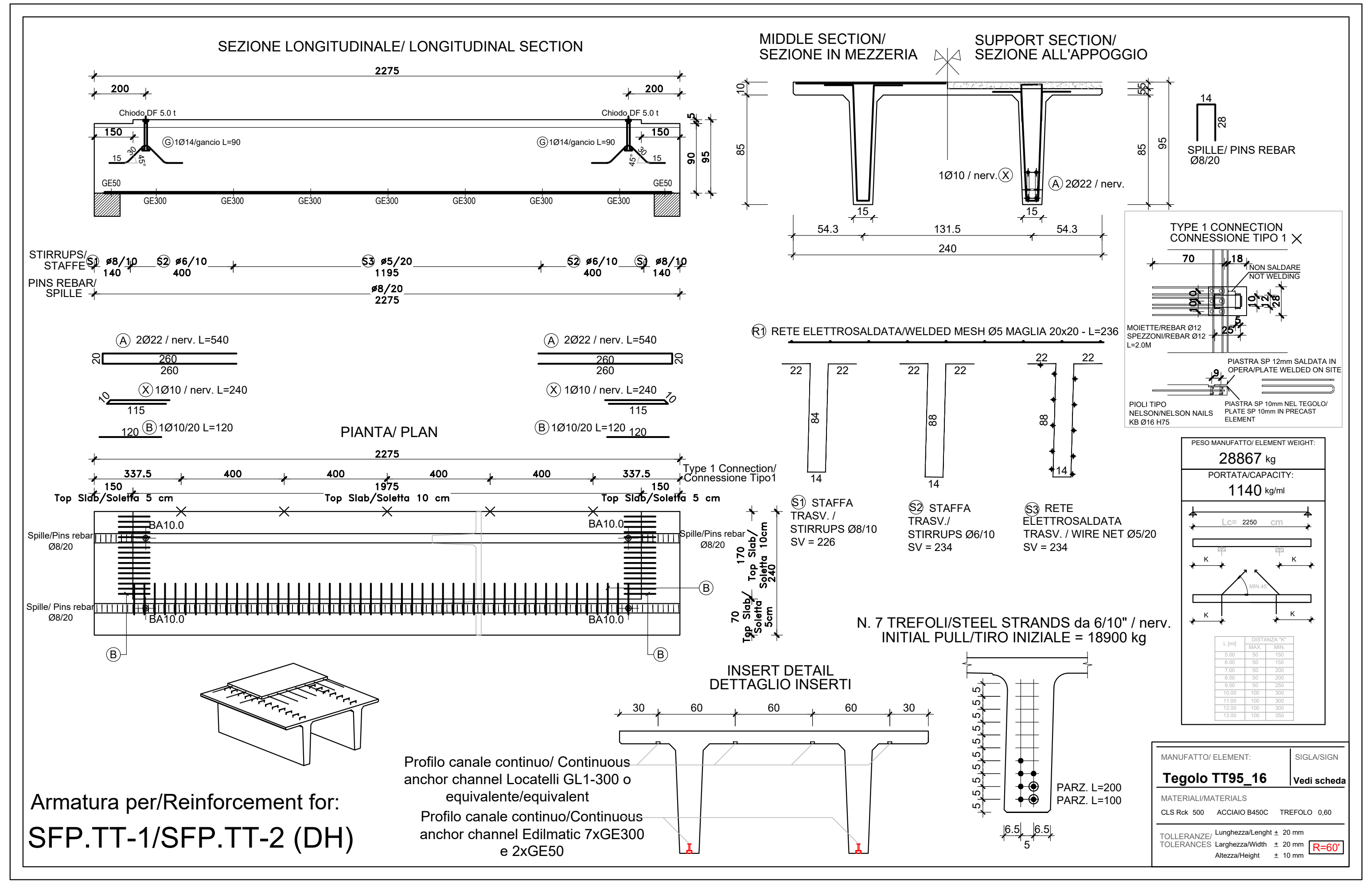
Scale @ A0: **1:150**

Revision: **P02**

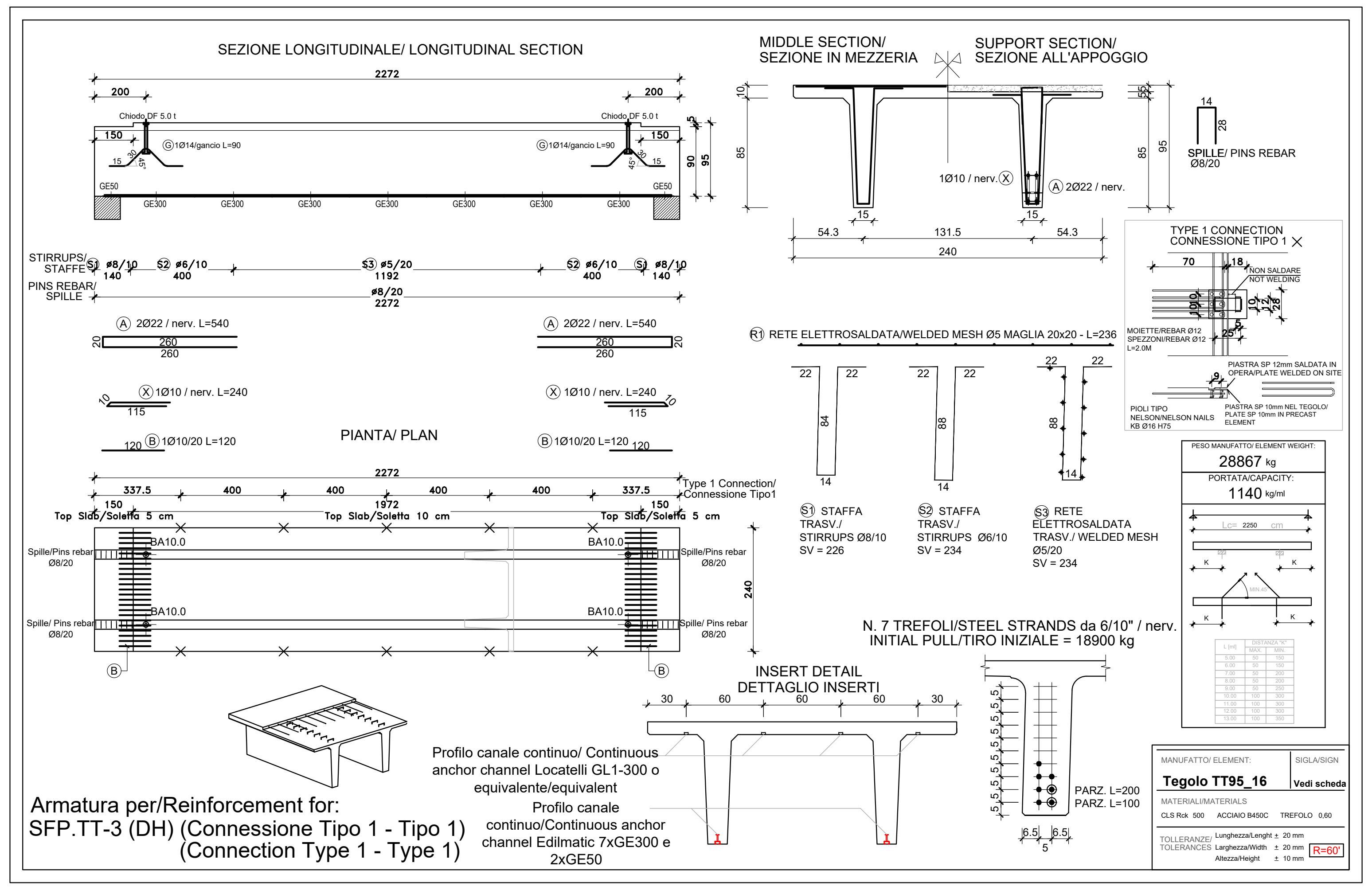
Drawing Number

SF106

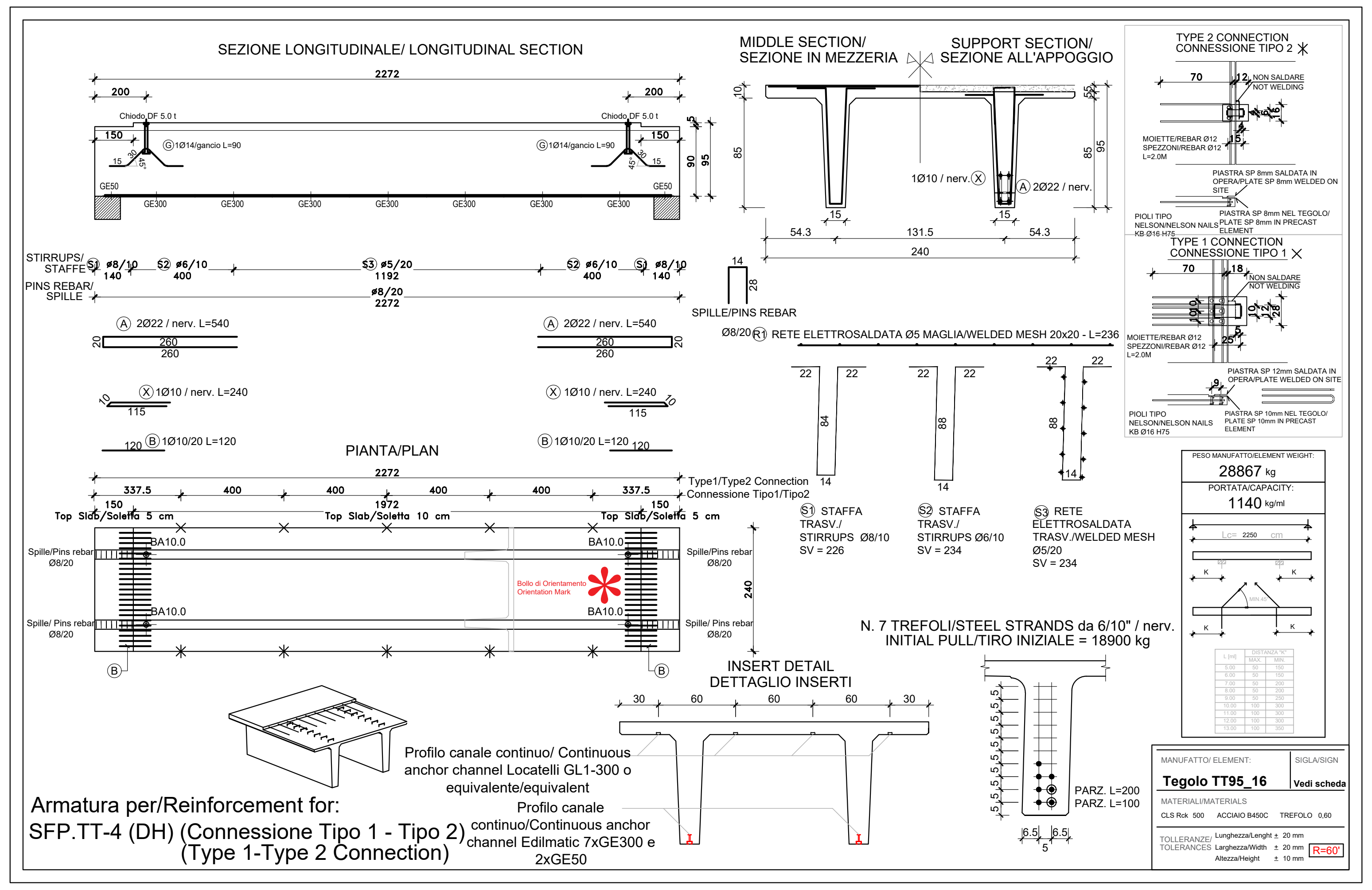
A0 - Do not scale


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2275
200
Chiodo DF 5.0 t
150
G 1Ø14/gancio L=90
GE50
GE300
90
95
STIRRUPS/ STAFFE
S1 ø8/10 140
S2 ø6/10 400
S3 ø5/20 1195
PINS REBAR/ SPILLE
ø8/20 2275
A 2Ø22 / nerv. L=540
X 1Ø10 / nerv. L=240
B 1Ø10/20 L=120
PIANTA/ PLAN
337.5
400
1975
Top Slab/Soletta 5 cm
Top Slab/Soletta 10 cm
Type 1 Connection/ Connessione Tipo1
BA10.0
Spille/Pins rebar Ø8/20
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
85
1Ø10 / nerv. X
A 2Ø22 / nerv.
54.3
131.5
240
SPILLE/ PINS REBAR Ø8/20
R1 RETE ELETTROSALDATA/WELDED MESH Ø5 MAGLIA 20x20 - L=236
TYPE 1 CONNECTION CONNESSIONE TIPO 1
NON SALDARE NOT WELDING
MOIETTE/REBAR Ø12 SPEZZONI/REBAR Ø12 L=2.0M
PIASTRA SP 12mm SALDATA IN OPERA/PLATE WELDED ON SITE
PIOLI TIPO NELSON/NELSON NAILS KB Ø16 H75
PIASTRA SP 10mm NEL TEGOLO/ PLATE SP 10mm IN PRECAST ELEMENT
S1 STAFFA TRASV. / STIRRUPS Ø8/10 SV = 226
S2 STAFFA TRASV./ STIRRUPS Ø6/10 SV = 234
S3 RETE ELETTROSALDATA TRASV. / WIRE NET Ø5/20 SV = 234
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
30 60 60 60 30
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
Profilo canale continuo/Continuous anchor channel Edilmatic 7xGE300 e 2xGE50
PARZ. L=200
PARZ. L=100
PESO MANUFATTO/ ELEMENT WEIGHT: 28867 kg
PORTATA/CAPACITY: 1140 kg/ml
Lc= 2250 cm
MIN.45
MANUFATTO/ ELEMENT: Tegolo TT95_16
SIGLA/SIGN Vedi scheda
MATERIALI/MATERIALS CLS Rck 500 ACCIAIO B450C TREFOLO 0,60
TOLLERANZE/ TOLERANCES Lunghezza/Lenght ± 20 mm Larghezza/Width ± 20 mm Altezza/Height ± 10 mm
R=60'

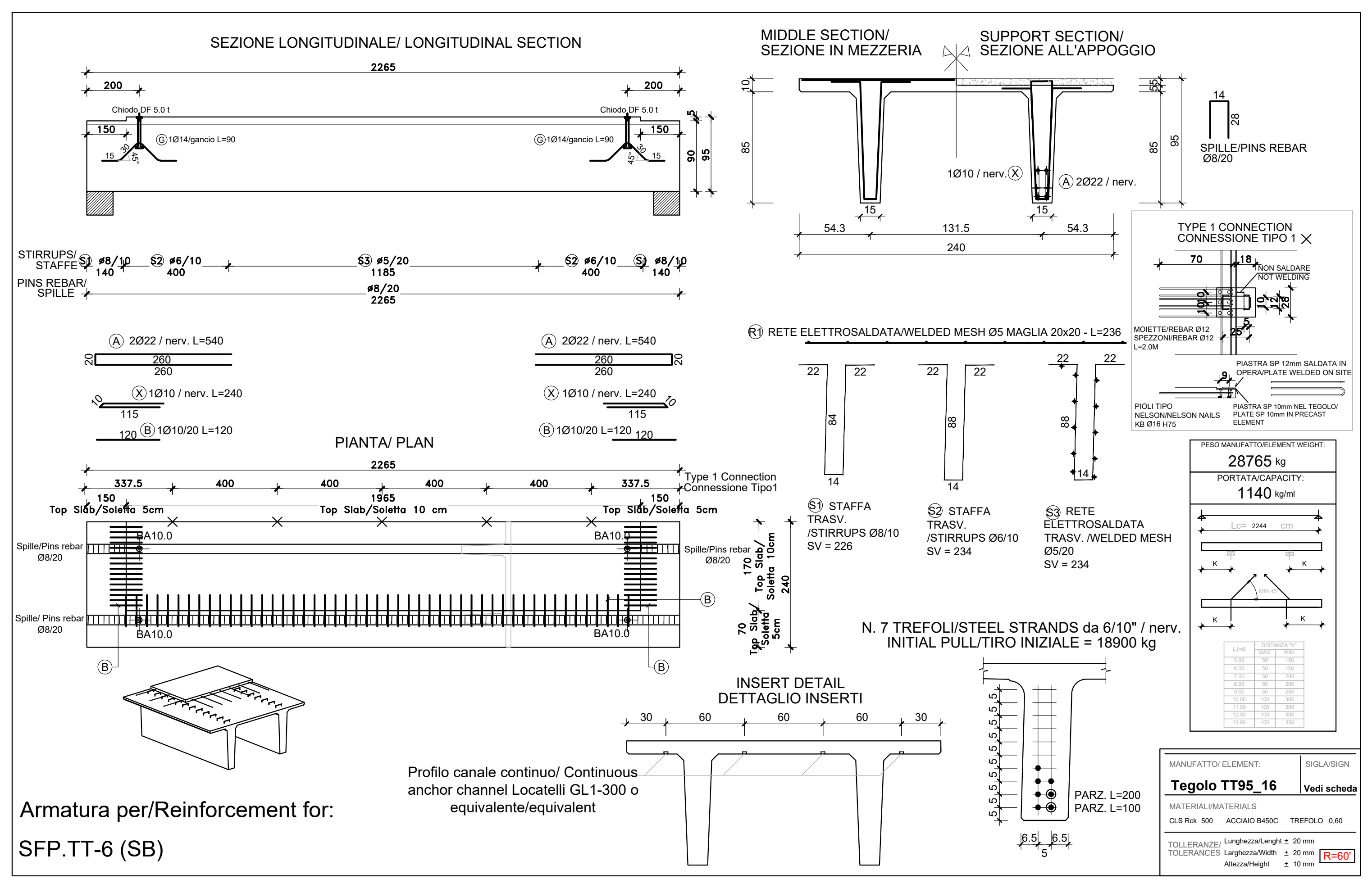
Armatura per/Reinforcement for:
SFP.TT-1/SFP.TT-2 (DH)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2272
PIANTA/ PLAN
1972
Type 1 Connection/ Connessione Tipo1
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
SPILLE/ PINS REBAR Ø8/20
TYPE 1 CONNECTION CONNESSIONE TIPO 1
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
Profilo canale continuo/Continuous anchor channel Edilmatic 7xGE300 e 2xGE50
28867 kg
1140 kg/ml
Tegolo TT95_16

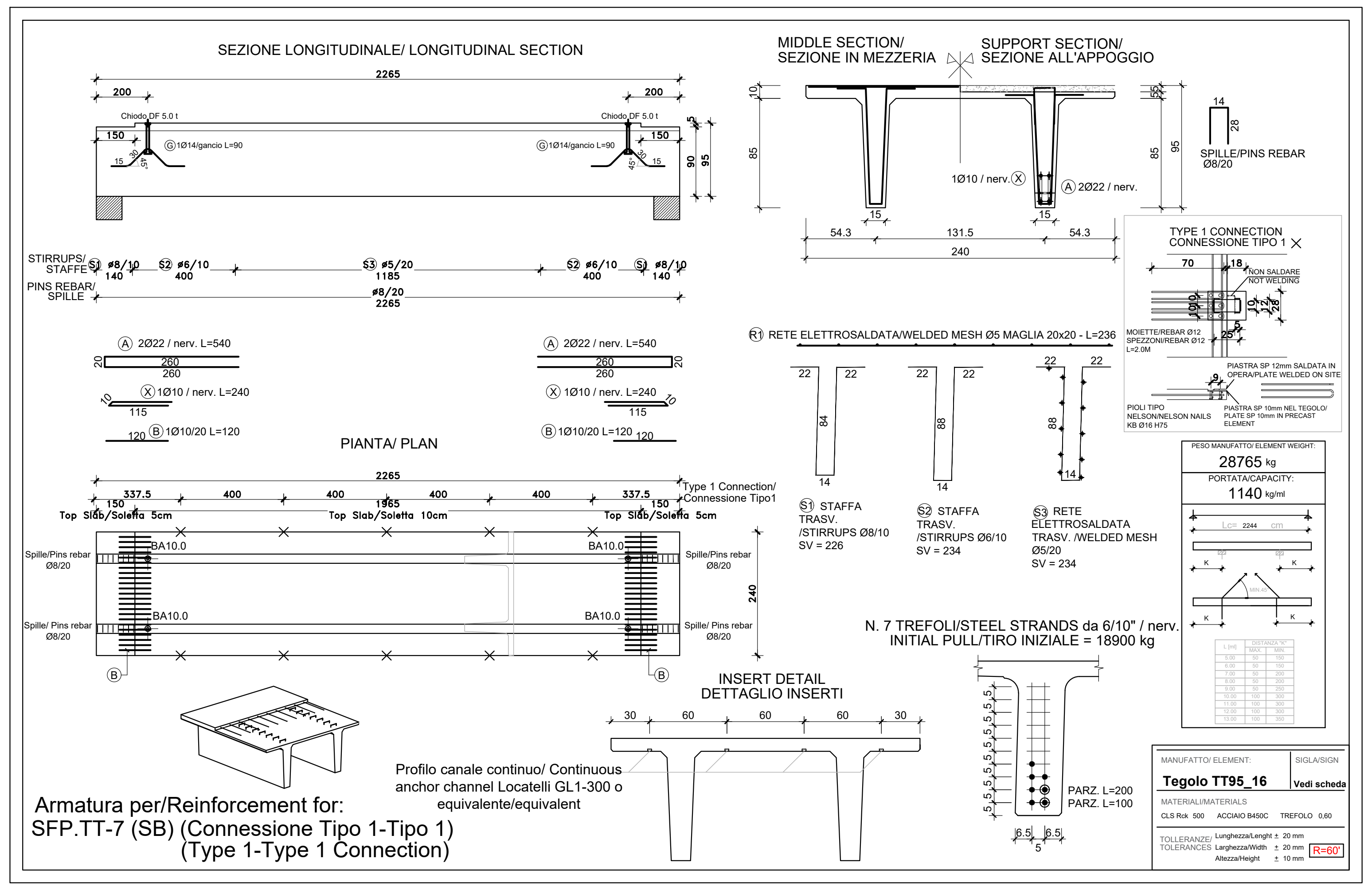
Armatura per/Reinforcement for:
SFP.TT-3 (DH) (Connessione Tipo 1 - Tipo 1)
(Connection Type 1 - Type 1)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2272
PIANTA/PLAN
Type1/Type2 Connection/ Connessione Tipo1/Tipo2
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
TYPE 2 CONNECTION CONNESSIONE TIPO 2
TYPE 1 CONNECTION CONNESSIONE TIPO 1
SPILLE/PINS REBAR Ø8/20
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
Profilo canale continuo/Continuous anchor channel Edilmatic 7xGE300 e 2xGE50
28867 kg
1140 kg/ml
Tegolo TT95_16

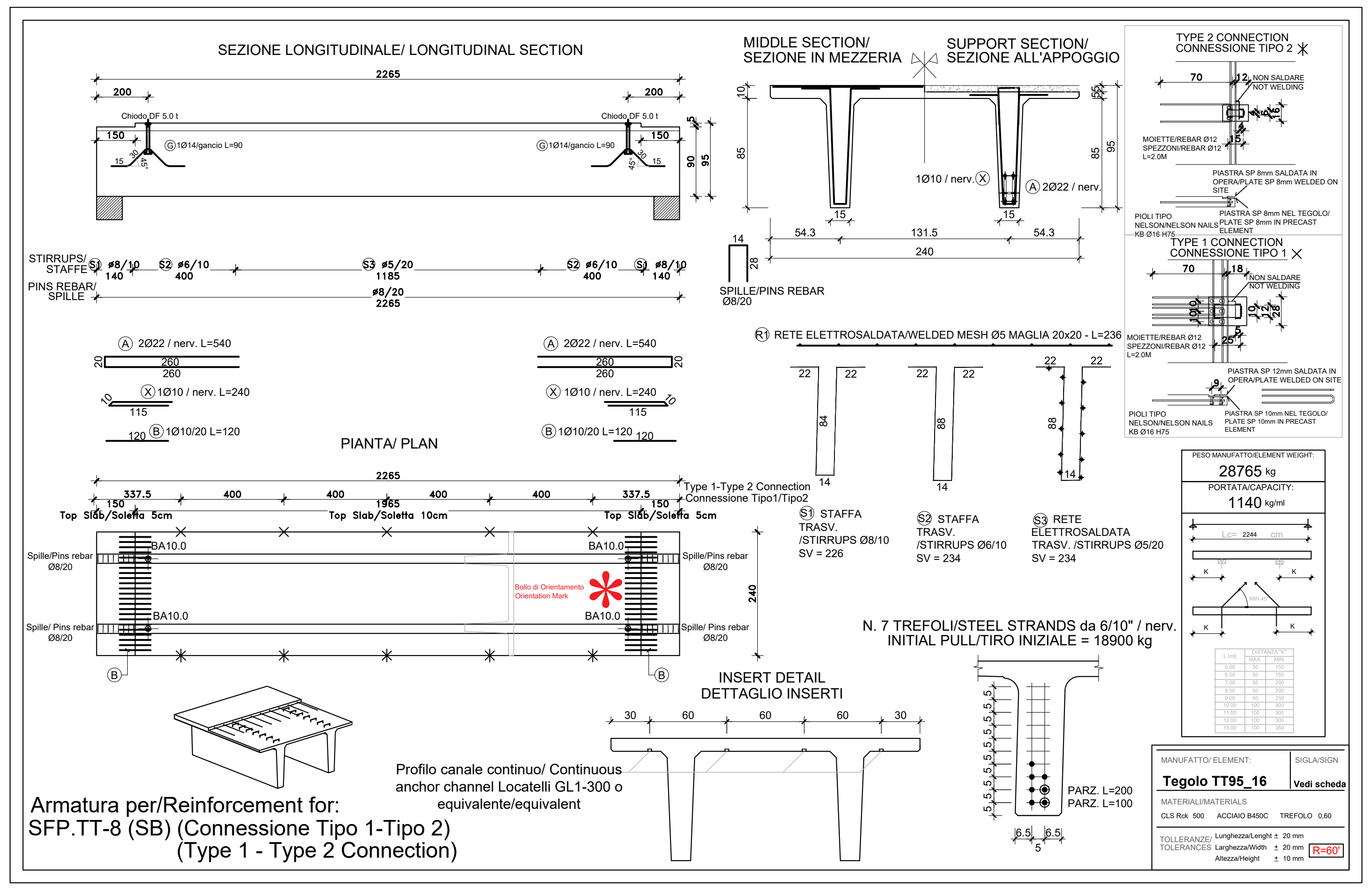
Armatura per/Reinforcement for:
SFP.TT-4 (DH) (Connessione Tipo 1 - Tipo 2)
(Type 1-Type 2 Connection)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2265
PIANTA/ PLAN
1965
Type 1 Connection Connessione Tipo1
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
SPILLE/PINS REBAR Ø8/20
TYPE 1 CONNECTION CONNESSIONE TIPO 1
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
28765 kg
1140 kg/ml
Tegolo TT95_16

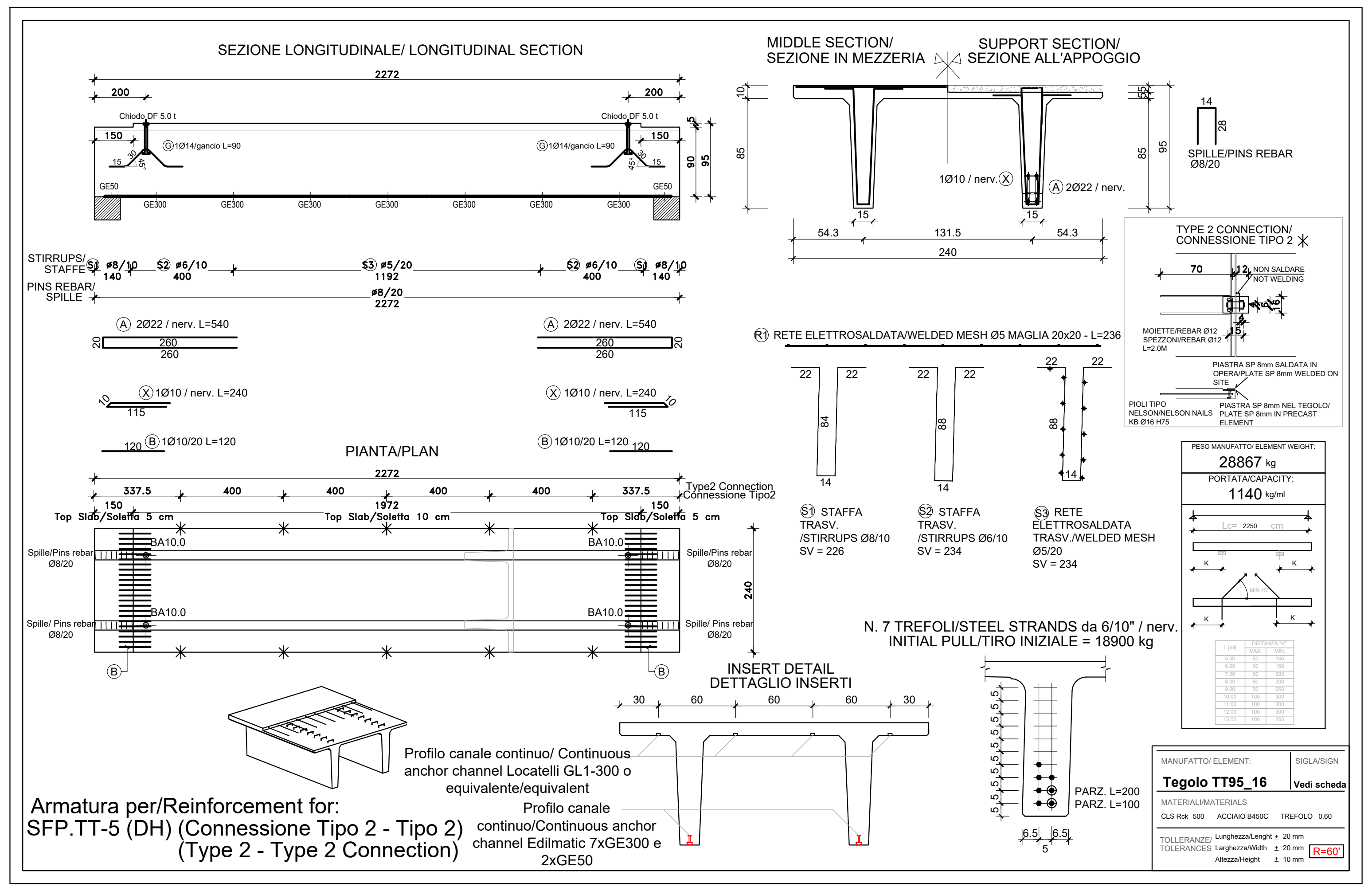
Armatura per/Reinforcement for:
SFP.TT-6 (SB)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2265
PIANTA/ PLAN
Type 1 Connection/ Connessione Tipo1
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
SPILLE/PINS REBAR Ø8/20
TYPE 1 CONNECTION CONNESSIONE TIPO 1
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
28765 kg
1140 kg/ml
Tegolo TT95_16

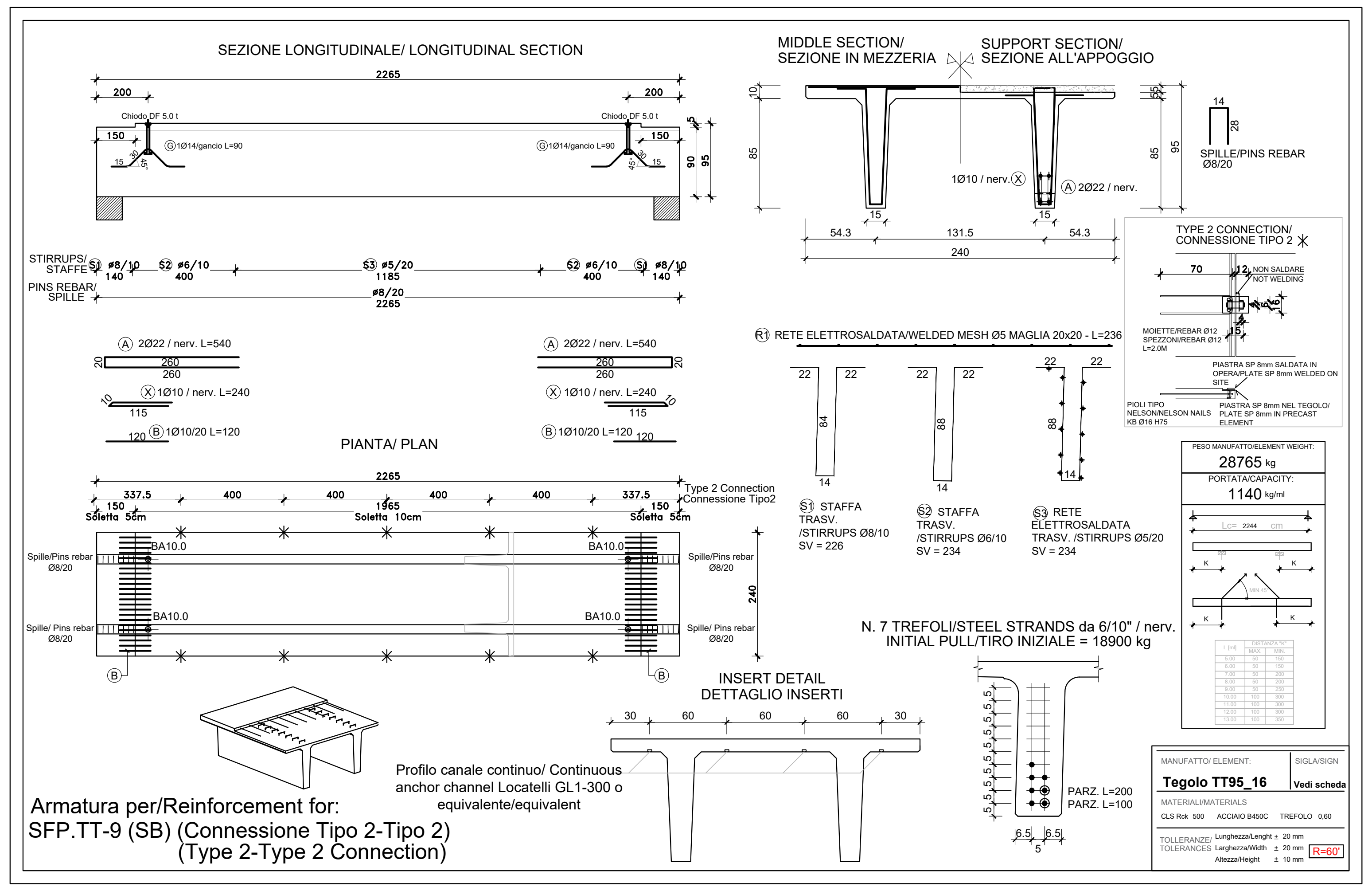
Armatura per/Reinforcement for:
SFP.TT-7 (SB) (Connessione Tipo 1-Tipo 1)
(Type 1-Type 1 Connection)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2265
PIANTA/ PLAN
Type 1-Type 2 Connection Connessione Tipo1/Tipo2
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
TYPE 2 CONNECTION CONNESSIONE TIPO 2
TYPE 1 CONNECTION CONNESSIONE TIPO 1
SPILLE/PINS REBAR Ø8/20
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
28765 kg
1140 kg/ml
Tegolo TT95_16

Armatura per/Reinforcement for:
SFP.TT-8 (SB) (Connessione Tipo 1-Tipo 2)
(Type 1 - Type 2 Connection)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2272
PIANTA/PLAN
1972
Type2 Connection Connessione Tipo2
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
SPILLE/PINS REBAR Ø8/20
TYPE 2 CONNECTION CONNESSIONE TIPO 2
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
Profilo canale continuo/Continuous anchor channel Edilmatic 7xGE300 e 2xGE50
28867 kg
1140 kg/ml
Tegolo TT95_16

Armatura per/Reinforcement for:
SFP.TT-5 (DH) (Connessione Tipo 2 - Tipo 2)
(Type 2 - Type 2 Connection)


SEZIONE LONGITUDINALE/ LONGITUDINAL SECTION
2265
PIANTA/ PLAN
Type 2 Connection Connessione Tipo2
MIDDLE SECTION/ SEZIONE IN MEZZERIA
SUPPORT SECTION/ SEZIONE ALL'APPOGGIO
SPILLE/PINS REBAR Ø8/20
TYPE 2 CONNECTION CONNESSIONE TIPO 2
N. 7 TREFOLI/STEEL STRANDS da 6/10" / nerv. INITIAL PULL/TIRO INIZIALE = 18900 kg
INSERT DETAIL DETTAGLIO INSERTI
Profilo canale continuo/ Continuous anchor channel Locatelli GL1-300 o equivalente/equivalent
28765 kg
1140 kg/ml
Tegolo TT95_16

Armatura per/Reinforcement for:
SFP.TT-9 (SB) (Connessione Tipo 2-Tipo 2)
(Type 2-Type 2 Connection)

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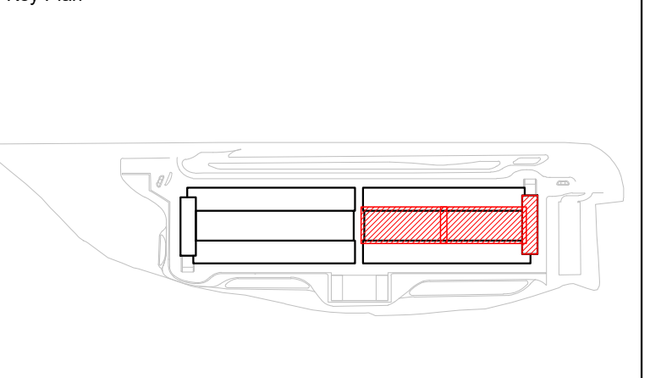
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

N

Key Plan



Massimo carico applicabile ai profili canale allo S.L.U. /
Max U.S.L. load on anchor channels:

Edilmatic GE
G_{Ed} = 15kN*

Locatelli GL-1
G_{Ed}=1.8kN*

*In ogni caso il carico appeso complessivo distribuito al m^2 non può superare i valori indicati nella pianta del quadro generale dei carichi appesi /
*In any case overall distribuited loads per m^2 cannot exceed the values indicated on loading plans of the suspended loading overview

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Double Tee Beams
Geometry and Reinforcement

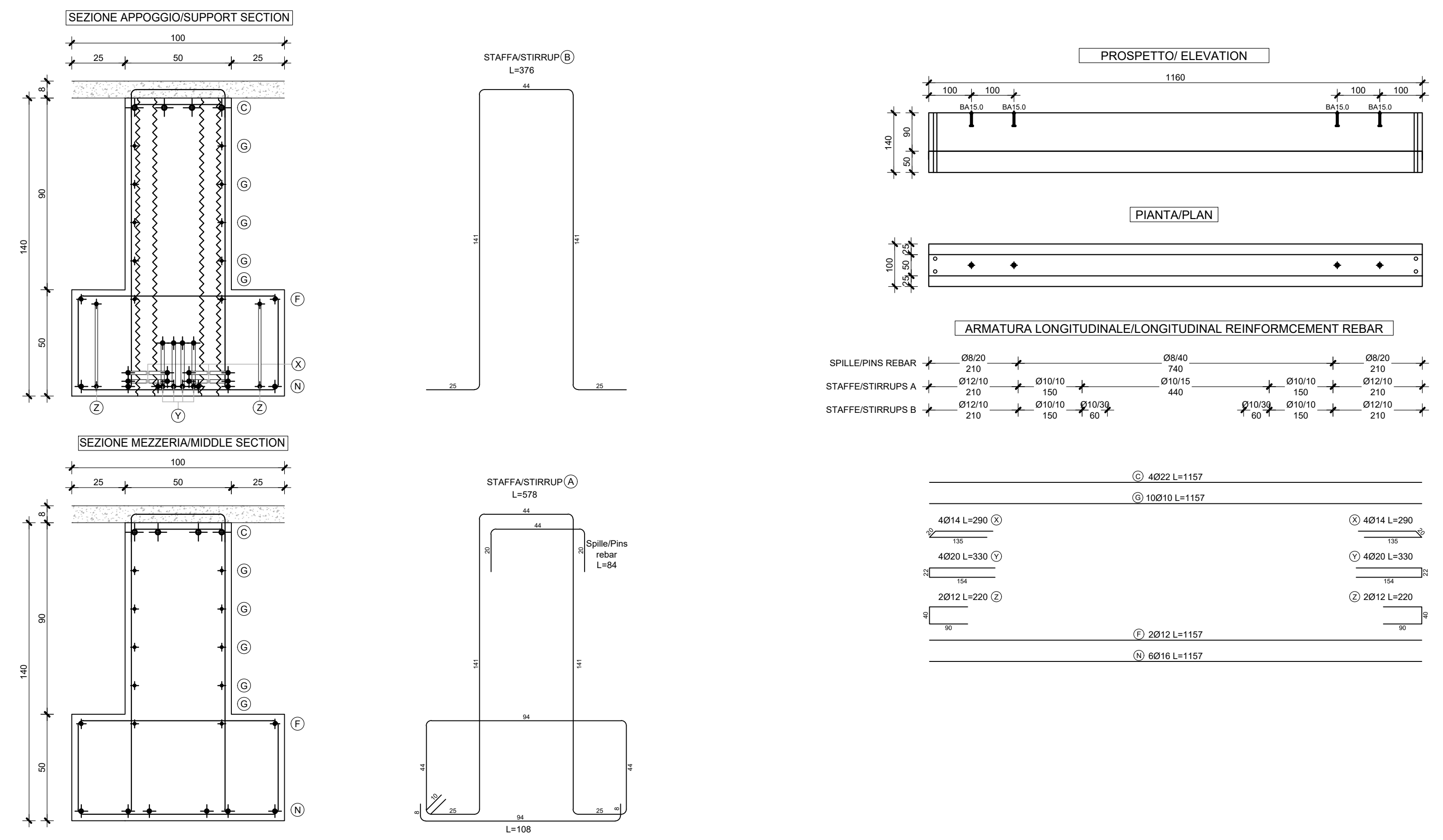
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	-	**P02**

Drawing Number
SF503

A0 - Do not scale

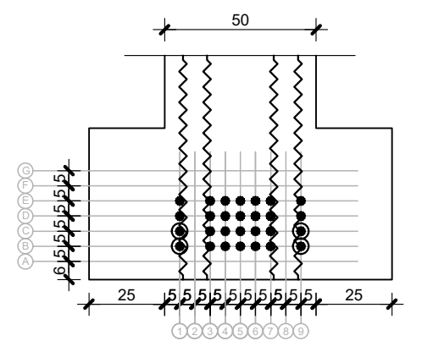

SEZIONE APPOGGIO/SUPPORT SECTION
STAFFA/STIRRUP B L=376
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP A L=578
Spille/Pins rebar L=84
L=108
PROSPETTO/ ELEVATION
1160
100
BA15.0
140
90
50
PIANTA/PLAN
100
25
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCMEMENT REBAR
SPILLE/PINS REBAR Ø8/20 210 Ø8/40 740 Ø8/20 210
STAFFE/STIRRUPS A Ø12/10 210 Ø10/10 150 Ø10/15 440 Ø10/10 150 Ø12/10 210
STAFFE/STIRRUPS B Ø12/10 210 Ø10/10 150 Ø10/30 60 Ø10/30 60 Ø10/10 150 Ø12/10 210
C 4Ø22 L=1157
G 10Ø10 L=1157
4Ø14 L=290 X
4Ø20 L=330 Y
2Ø12 L=220 Z
F 2Ø12 L=1157
N 6Ø16 L=1157

ARMATURA TRAVI/REINFORCEMENT FOR:
SFP.TA L=11,60 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

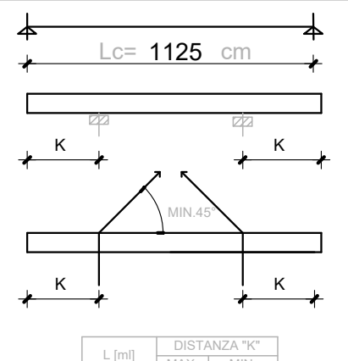
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 28 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg


50
25
5
6
A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9

GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
B1-B9	100
C1-C9	200

PORTATA/CAPACITY:
22316 kg/ml


Lc= 1125 cm
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

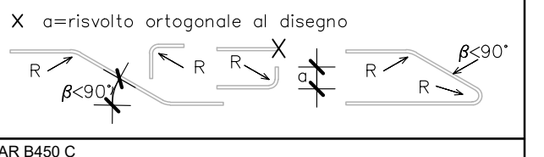
CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

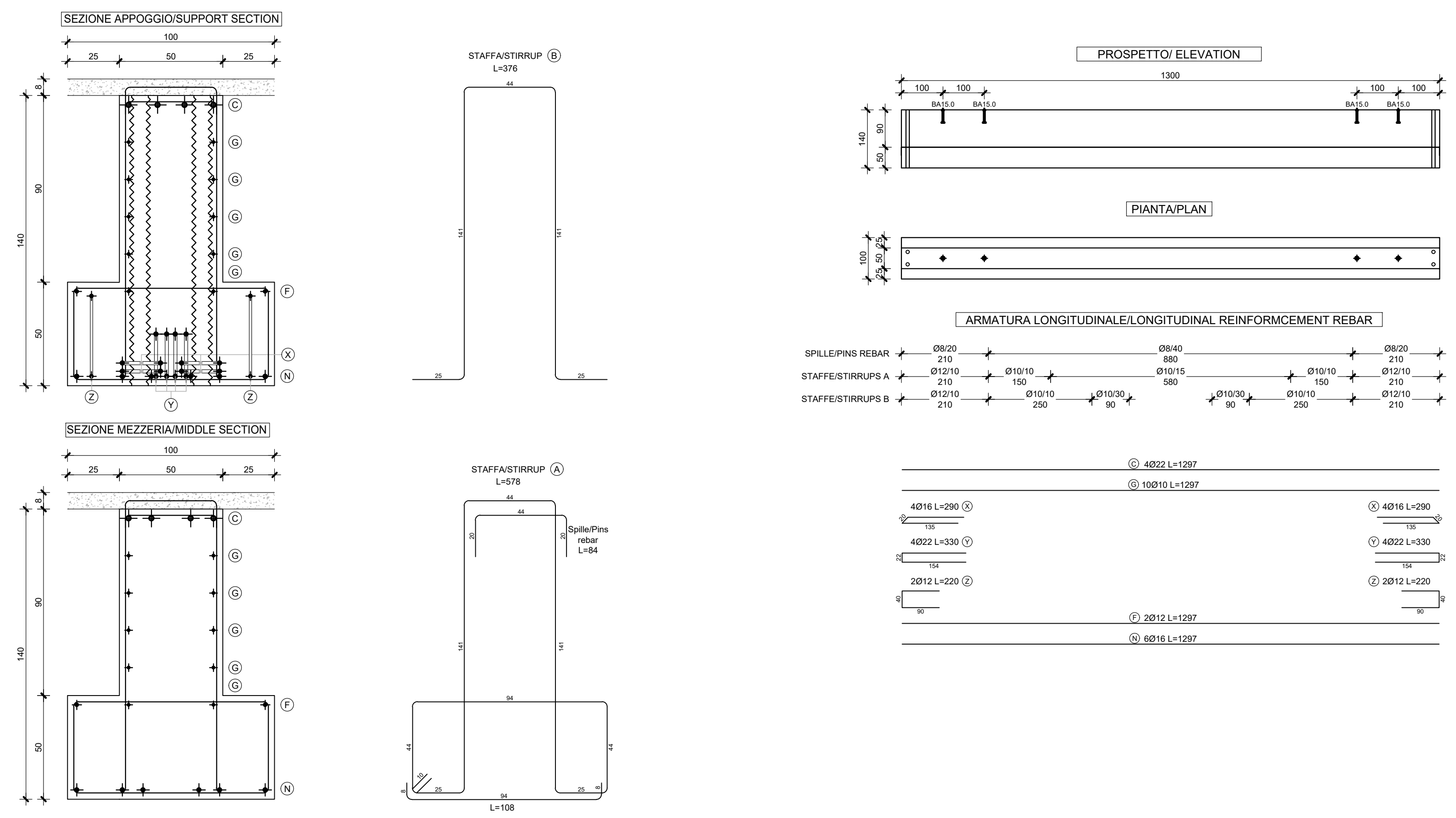
R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30



ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2

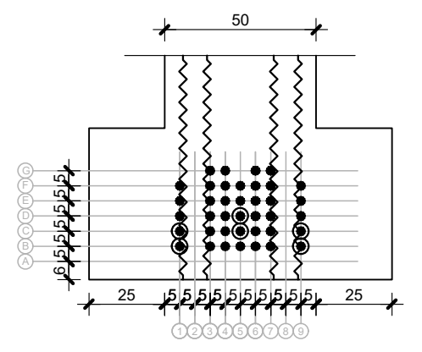

SEZIONE APPOGGIO/SUPPORT SECTION
STAFFA/STIRRUP B L=376
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP A L=578
Spille/Pins rebar L=84
L=108
PROSPETTO/ ELEVATION
1300
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCMEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
4Ø22 L=1297
10Ø10 L=1297
2Ø12 L=1297
6Ø16 L=1297

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.TA L=13,00 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

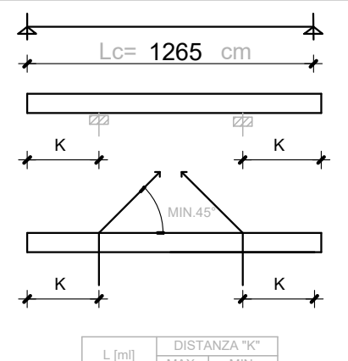
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 39 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
B1-B9	100
C1-C5-C9	200
D5	250
–	–

PORTATA/CAPACITY:
22316 kg/ml


Lc= 1265 cm
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

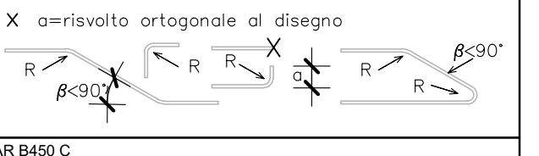
CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

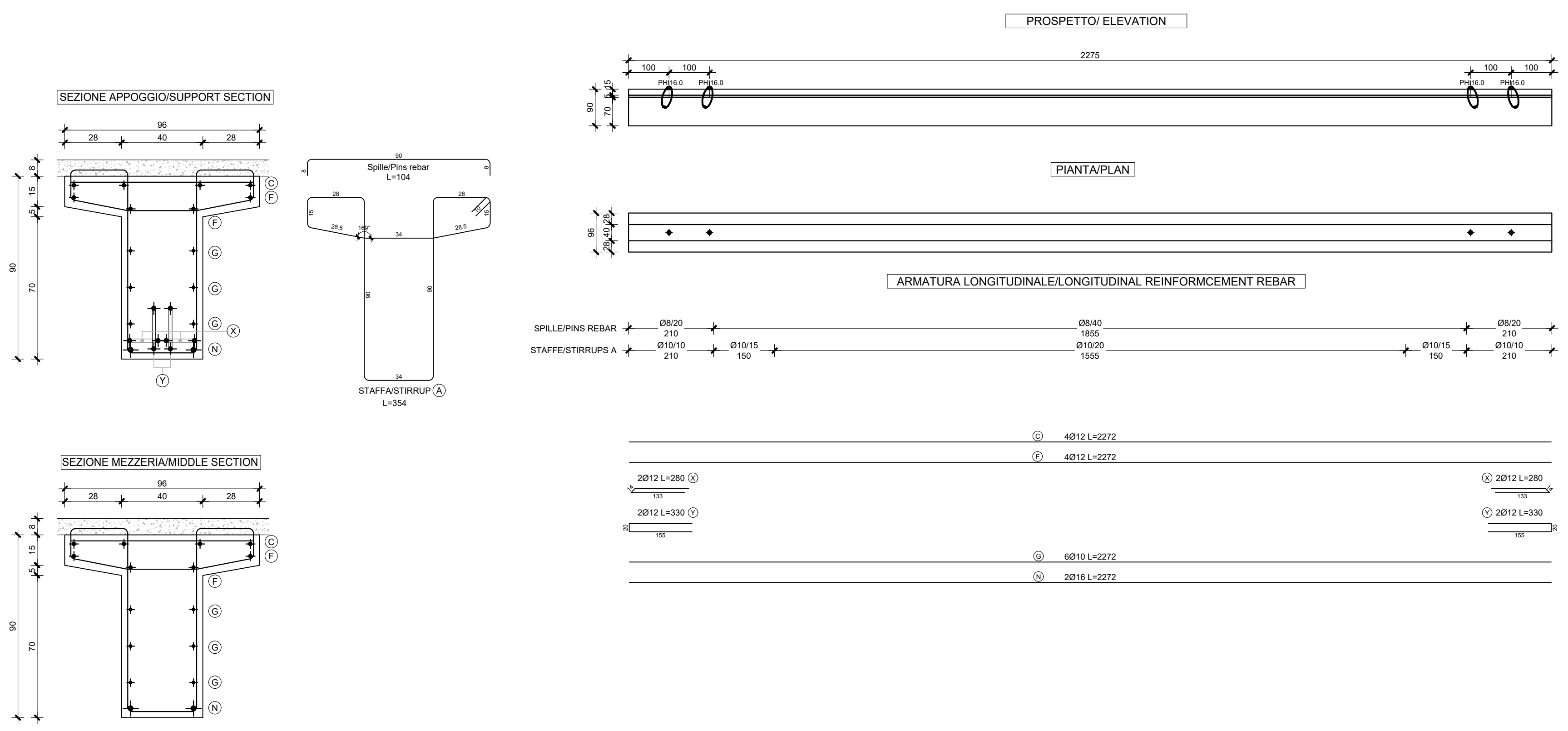
R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30



ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2

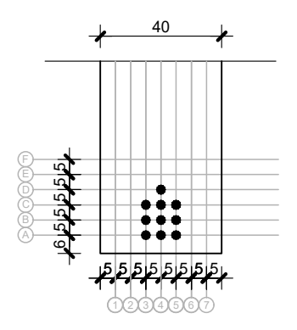

SEZIONE APPOGGIO/SUPPORT SECTION
Spille/Pins rebar L=104
STAFFA/STIRRUP A L=364
SEZIONE MEZZERIA/MIDDLE SECTION
PROSPETTO/ ELEVATION
2275
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCMEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
4Ø12 L=2272
6Ø10 L=2272
2Ø16 L=2272
2Ø12 L=260
2Ø12 L=330

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.TC L=22,75 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

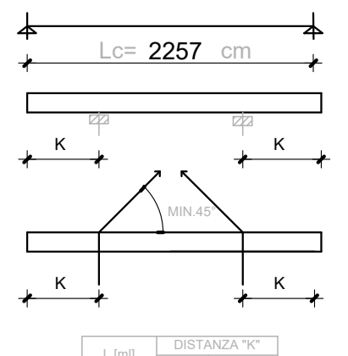
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 10 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg


40
5
6
A
B
C
D
E
F
1
2
3
4
5
6
7

GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
–	–
–	–

PORTATA/CAPACITY:
590 kg/ml


Lc= 2257 cm
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

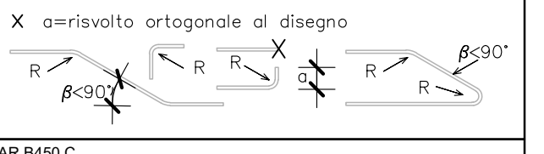
CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

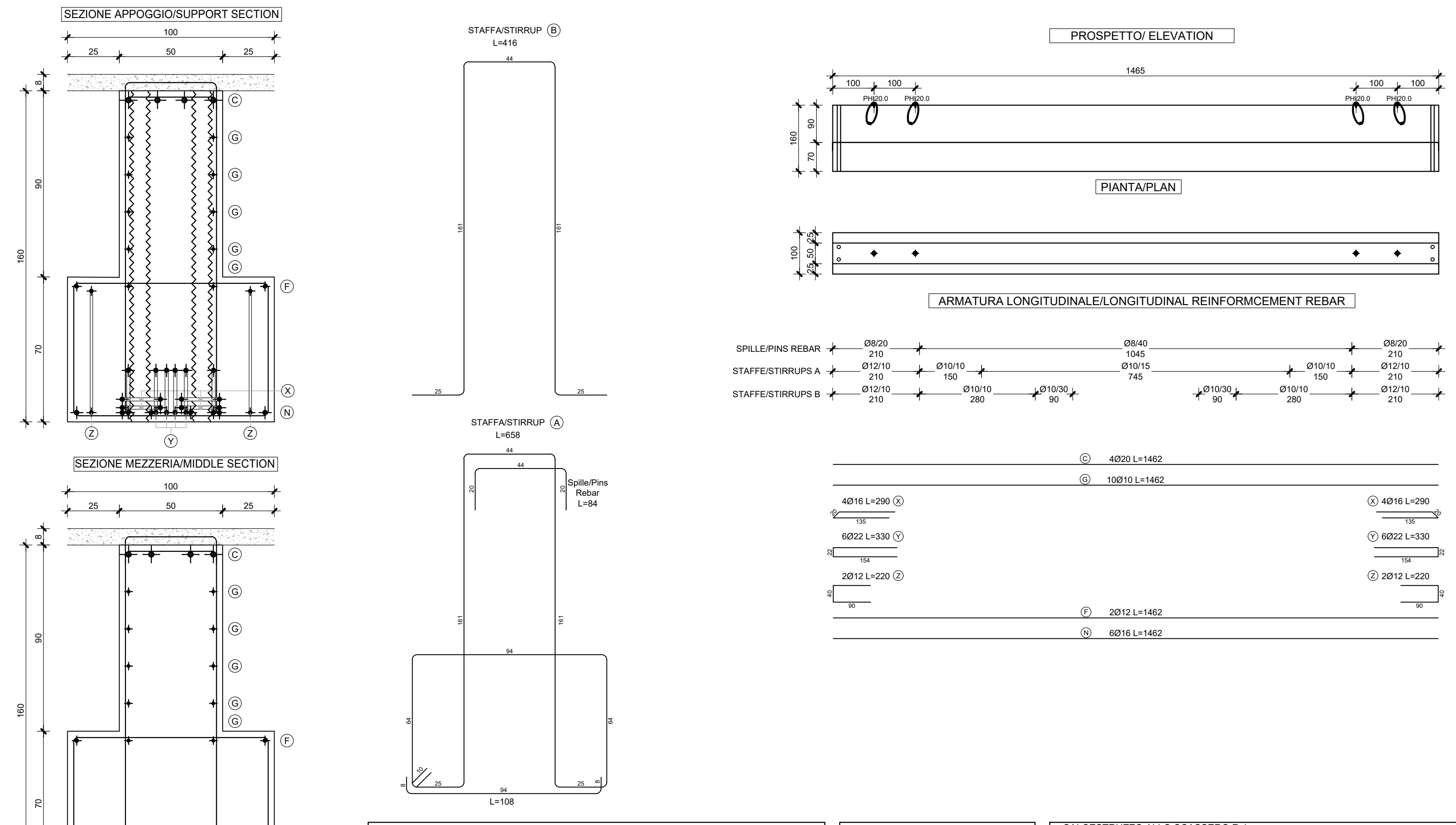
R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30



ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2

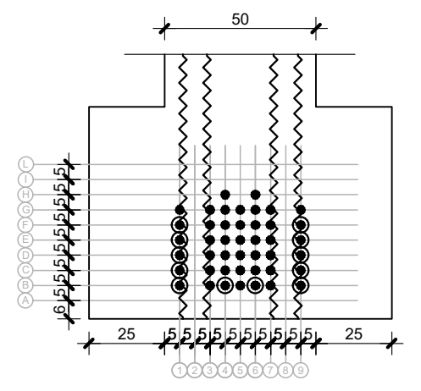

SEZIONE APPOGGIO/SUPPORT SECTION
STAFFA/STIRRUP B L=416
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP A L=658
Spille/Pins rebar L=84
L=108
PROSPETTO/ ELEVATION
1465
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCMEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
4Ø20 L=1462
10Ø10 L=1462
2Ø12 L=1462
6Ø16 L=1462

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.TB L=14,65 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

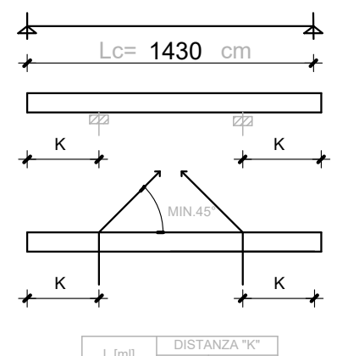
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 44 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
B1-B9	400
B4-B6	300
C1-C9	200
D1-D9	150
E1-E9	100
F1-F9	100

PORTATA/CAPACITY:
22316 kg/ml


Lc= 1430 cm
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

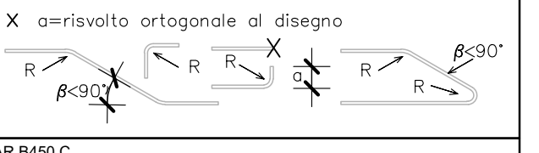
CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30



ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_K \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2

General Notes

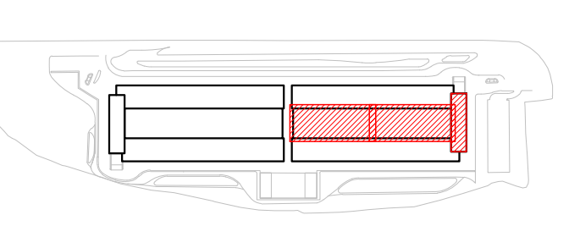
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

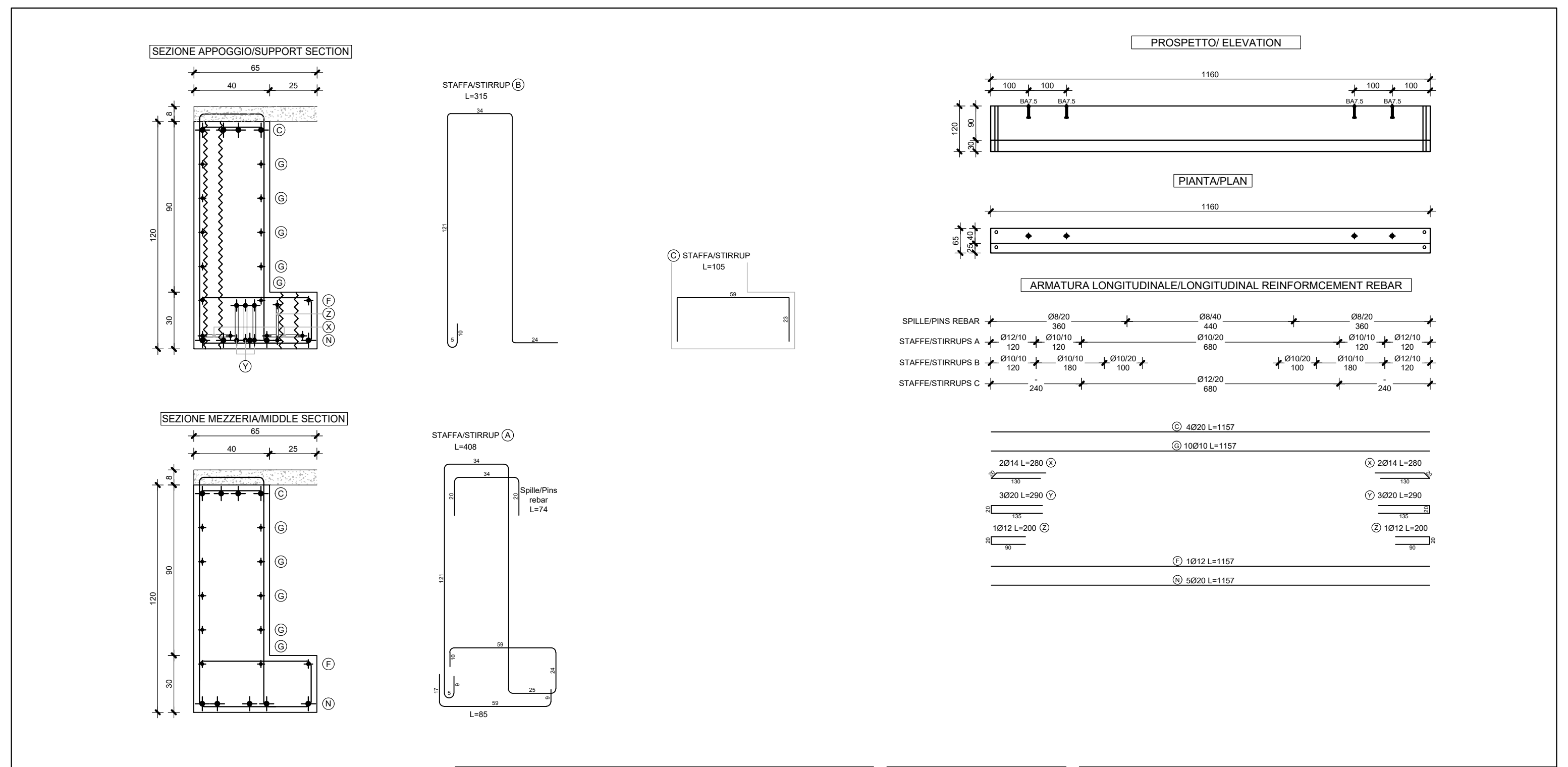
Project Title
MXP I-I

Drawing Title
Superstructure
Tee Beams - Geometry and Reinforcement

Project Status
ISSUED FOR CONSTRUCTION

Discipline: **Structural**
Status Code: **S5**
Project Number: **P10424**
Scale @ A0: -
Revision: **P02**
Drawing Number: **SF504**

A0 - Do not scale


SEZIONE APPOGGIO/SUPPORT SECTION
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP
PROSPETTO/ ELEVATION
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
STAFFE/STIRRUPS C
L=85
Ⓝ 5Ø20 L=1157

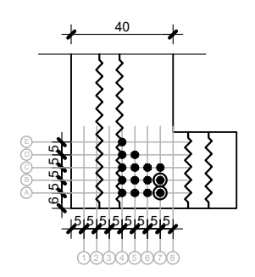
ARMATURA
TRAVI/REINFORCEMENT FOR:

SFP.LA L=11,60 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

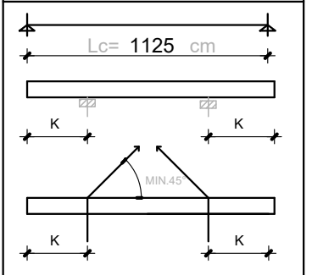
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 15 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A7	100
B7	200

PORTATA EQUIV. FLETT.:
11223 kg/ml


Lc= 1125 cm
K
K
K
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

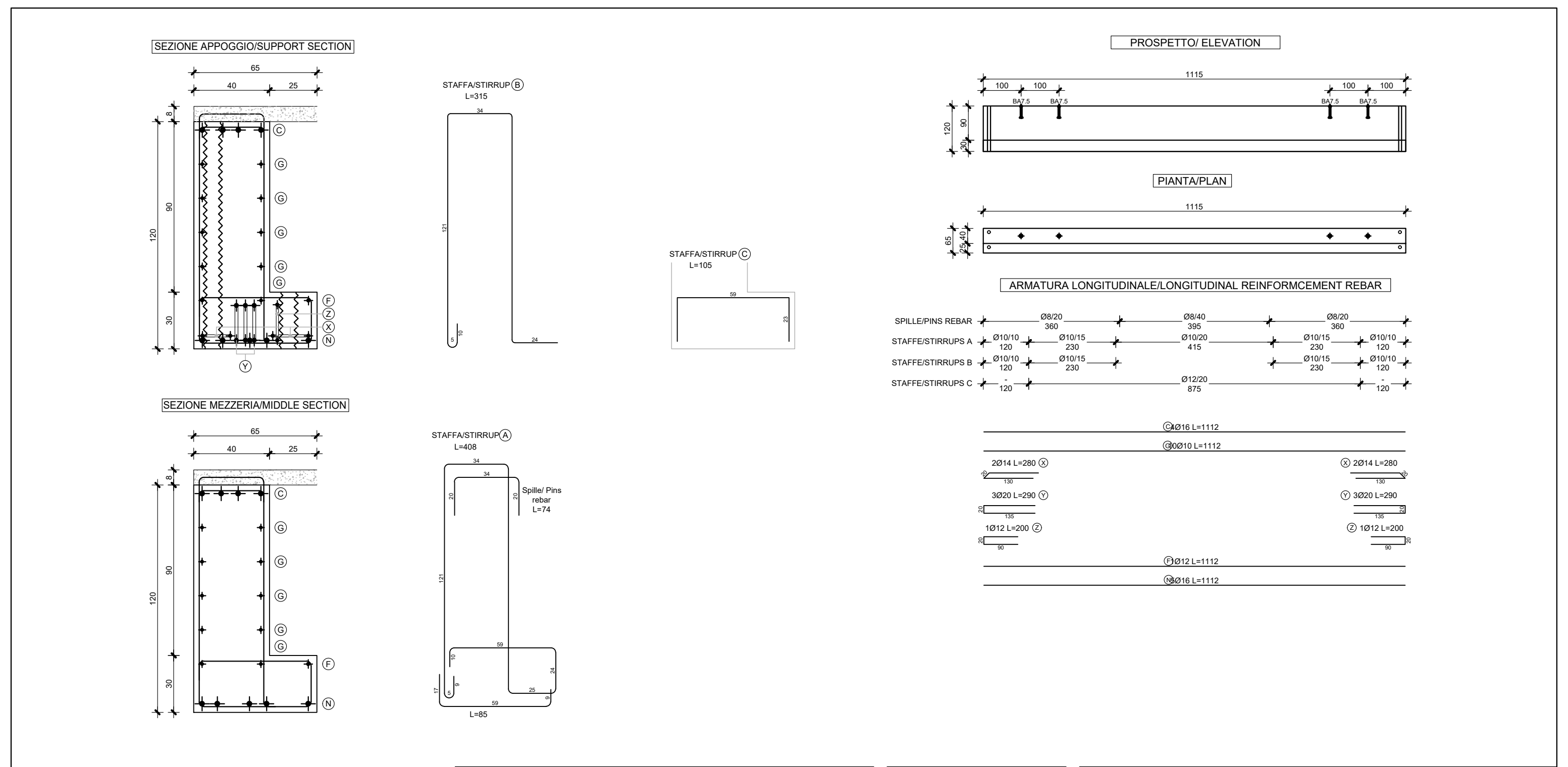
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 7.5\%$

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 2.5\%$

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²


SEZIONE APPOGGIO/SUPPORT SECTION
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP
PROSPETTO/ ELEVATION
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
STAFFE/STIRRUPS C
L=85
Ⓝ 5Ø16 L=1112

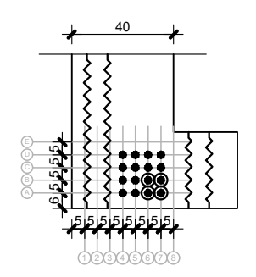
ARMATURA
TRAVI/REINFORCEMENT FOR:

SFP.LA L=11,15 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

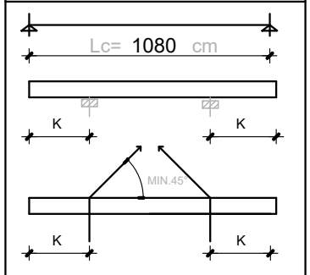
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 16 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A6–A7	200
B6–B7	300

PORTATA EQUIV. FLETT.:
11342 kg/ml


Lc= 1080 cm
K
K
K
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

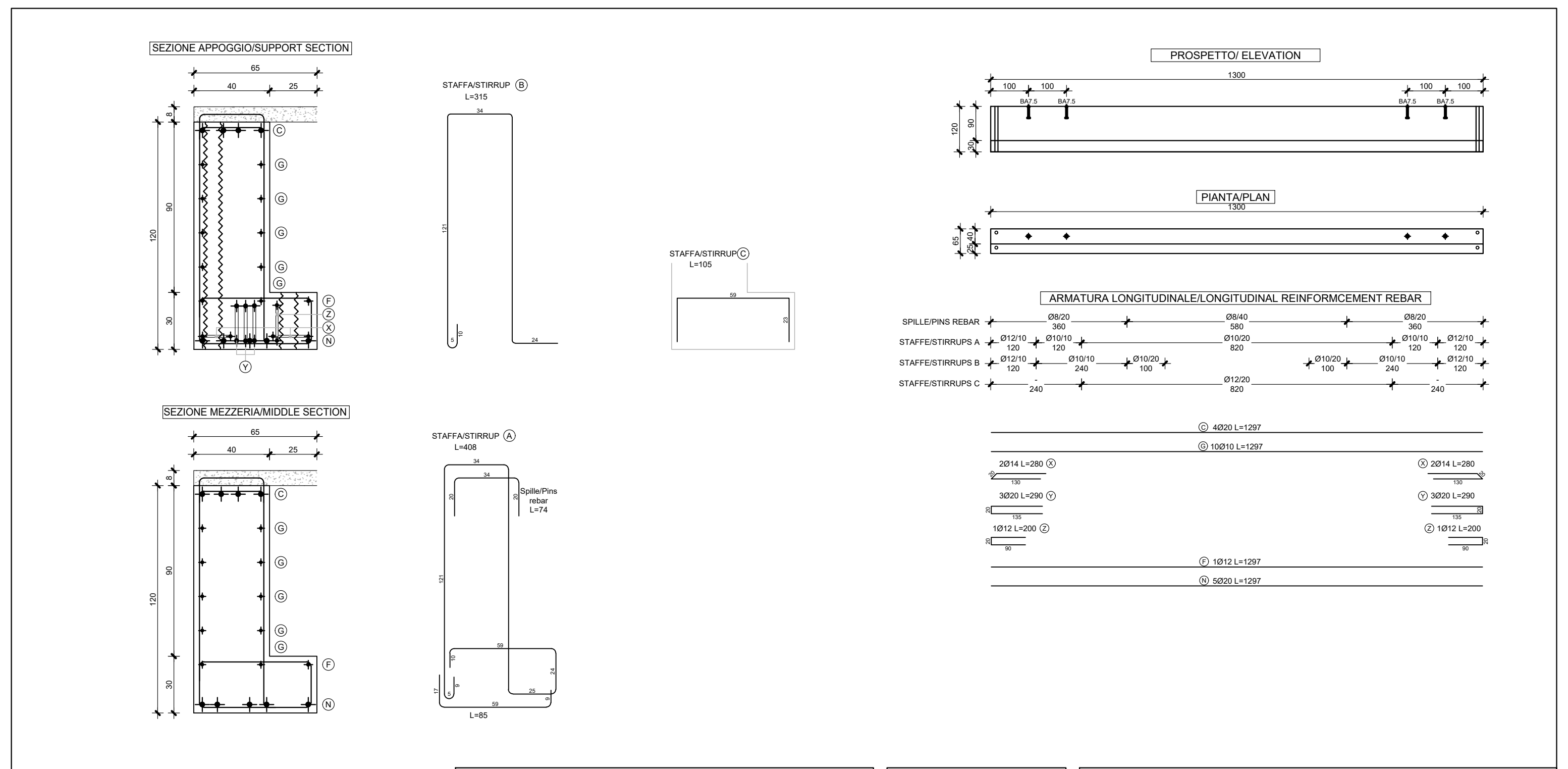
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 7.5\%$

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 2.5\%$

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²


SEZIONE APPOGGIO/SUPPORT SECTION
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP
PROSPETTO/ ELEVATION
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
STAFFE/STIRRUPS C
L=85
Ⓝ 5Ø20 L=1297

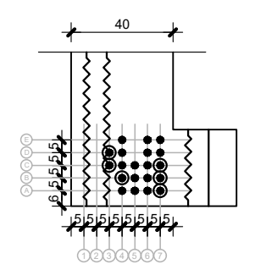
ARMATURA
TRAVI/REINFORCEMENT FOR:

SFP.LA L=13,00 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

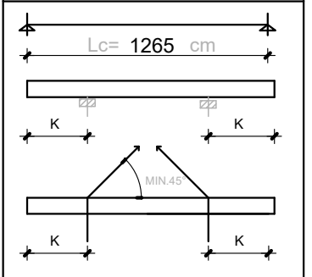
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 20 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A7	100
B4–B7	200
C2–C7	300
D2	400

PORTATA EQUIV. FLETT.:
11223 kg/ml


Lc= 1265 cm
K
K
K
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

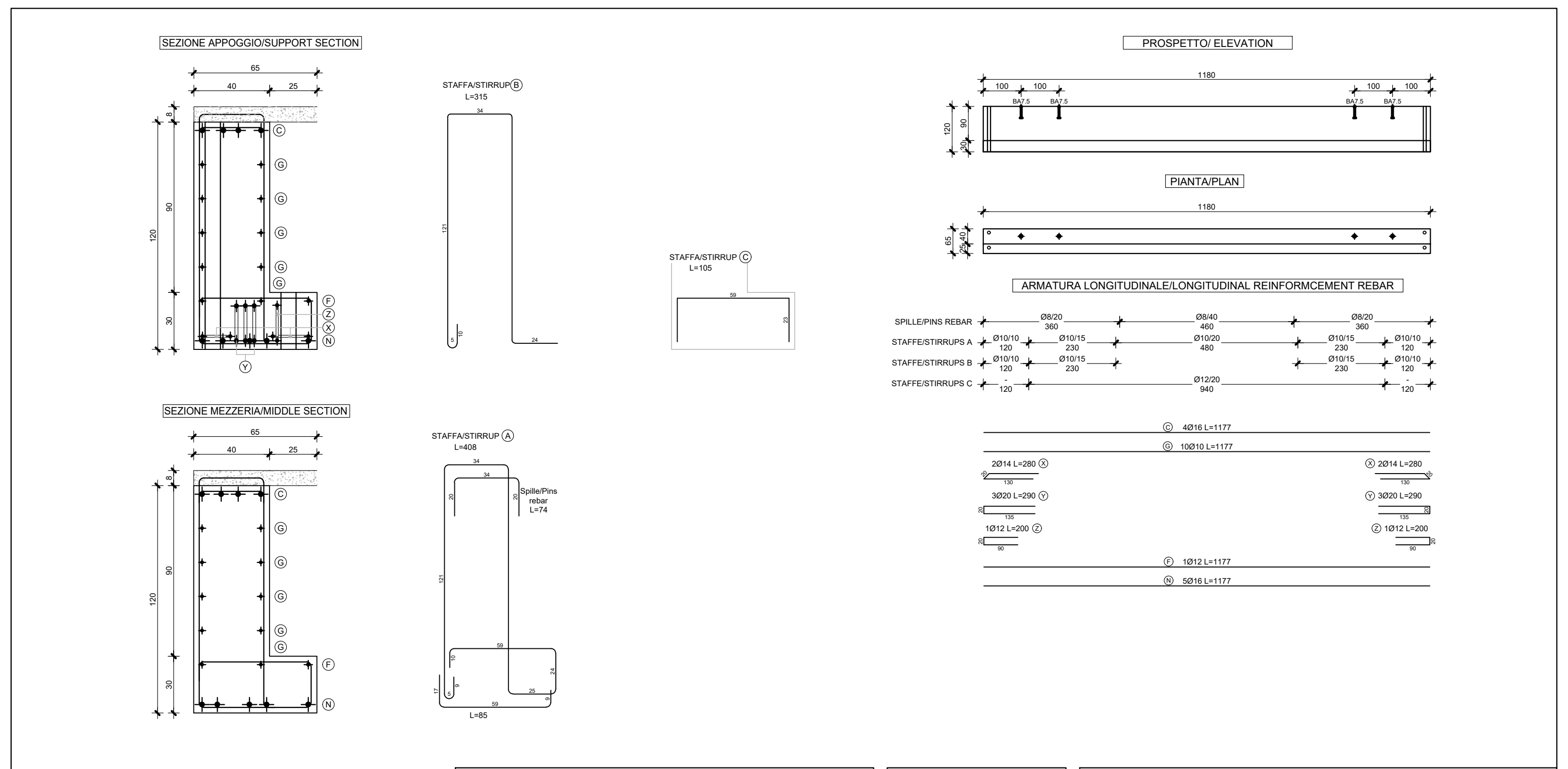
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 7.5\%$

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 2.5\%$

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²


SEZIONE APPOGGIO/SUPPORT SECTION
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP
PROSPETTO/ ELEVATION
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
STAFFE/STIRRUPS C
L=85
Ⓝ 5Ø16 L=1177

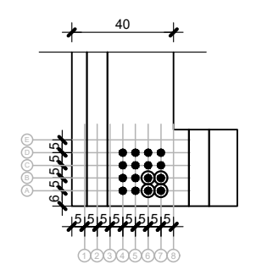
ARMATURA
TRAVI/REINFORCEMENT FOR:

SFP.LA L=11,80 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

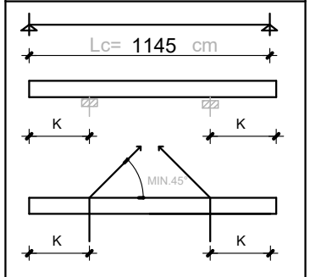
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 16 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A6–A7	200
B6–B7	300

PORTATA EQUIV. FLETT.:
11342 kg/ml


Lc= 1145 cm
K
K
K
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

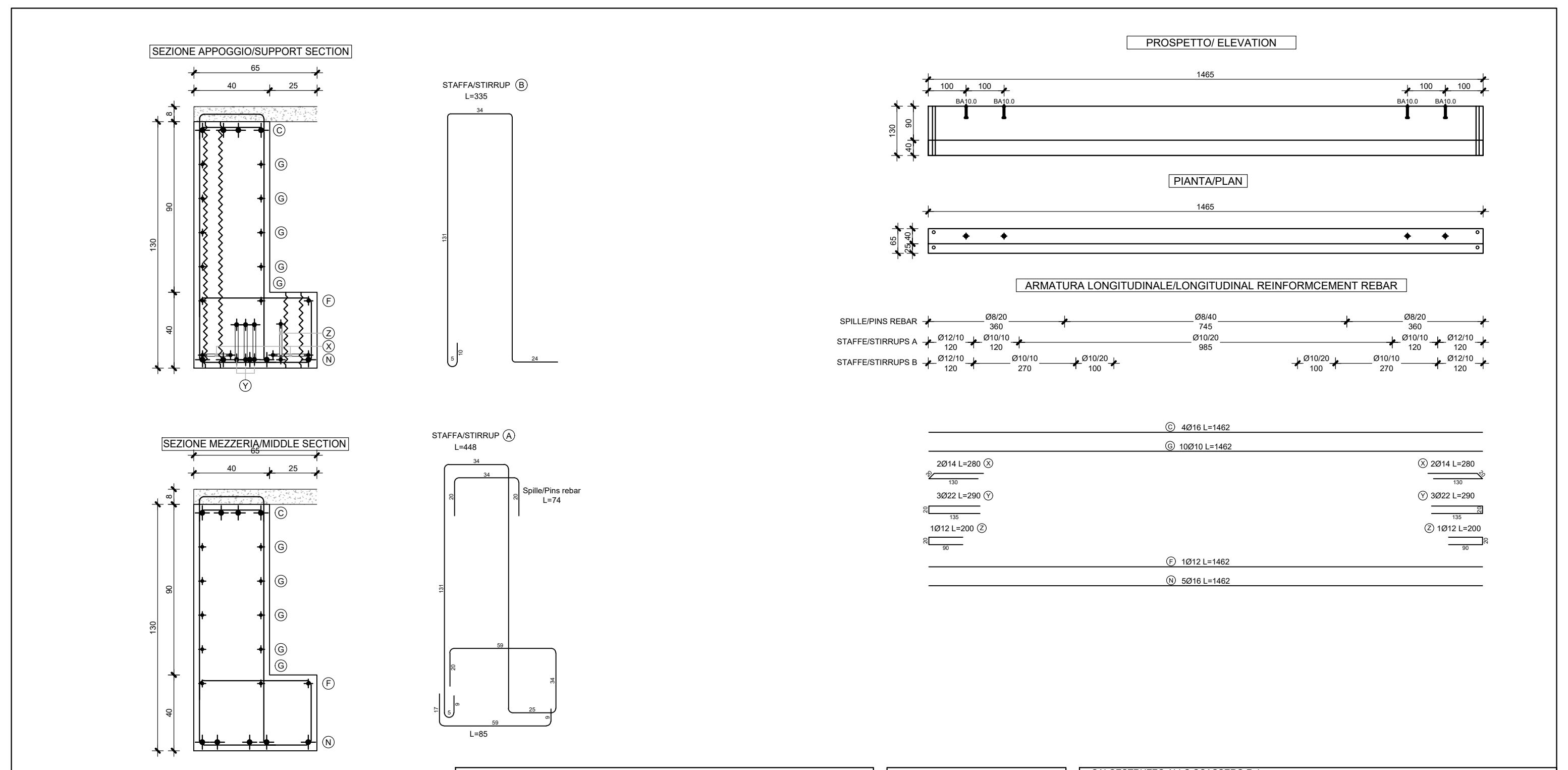
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 7.5\%$

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 2.5\%$

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²


SEZIONE APPOGGIO/SUPPORT SECTION
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP
PROSPETTO/ ELEVATION
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
L=85
Ⓝ 5Ø16 L=1462

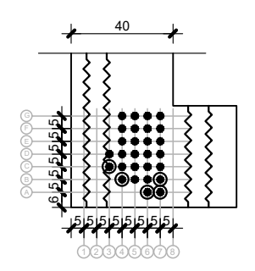
ARMATURA
TRAVI/REINFORCEMENT FOR:

SFP.LB L=14,65 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

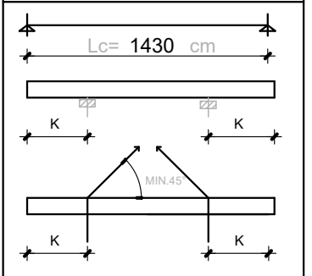
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 28 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A6	200
A7	250
B7–B4	100
C2	100

PORTATA EQUIV. FLETT.:
11223 kg/ml


Lc= 1430 cm
K
K
K
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

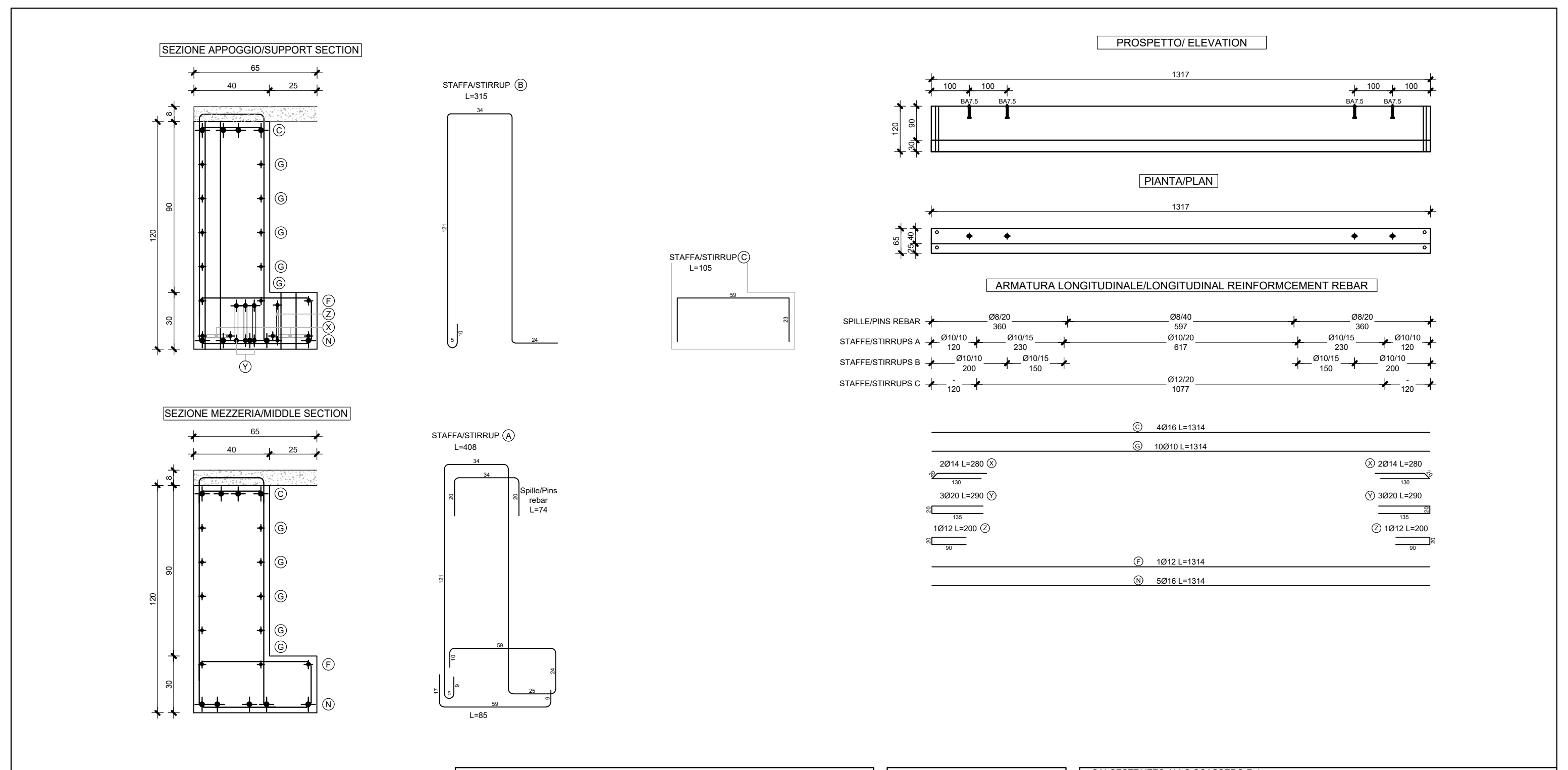
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 7.5\%$

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 2.5\%$

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²


SEZIONE APPOGGIO/SUPPORT SECTION
SEZIONE MEZZERIA/MIDDLE SECTION
STAFFA/STIRRUP
PROSPETTO/ ELEVATION
PIANTA/PLAN
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORCEMENT REBAR
SPILLE/PINS REBAR
STAFFE/STIRRUPS A
STAFFE/STIRRUPS B
STAFFE/STIRRUPS C
L=85
Ⓝ 5Ø16 L=1314

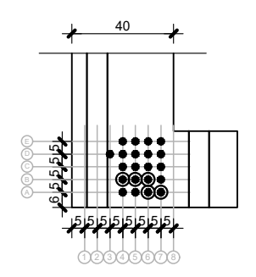
ARMATURA
TRAVI/REINFORCEMENT FOR:

SFP.LA L=13,17 m

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

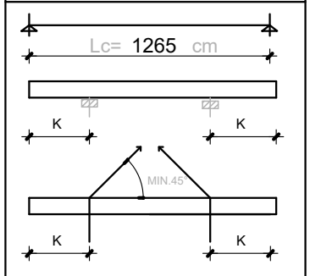
SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 21 TREFOLI PRE-TESI Ø15.2mm
TESATI A 18900 kg



GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A6–A7	400
B4–B5–B6	200

PORTATA EQUIV. FLETT.:
11342 kg/ml


Lc= 1265 cm
K
K
K
K
MIN.45°

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	➡ 350	daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 7.5\%$

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² $(A_{gt})_k \geq 2.5\%$

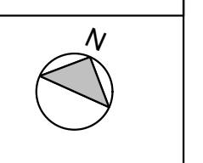
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

General Notes

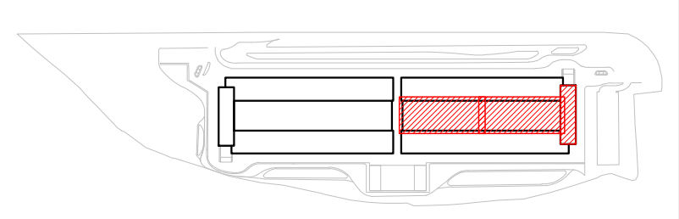
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

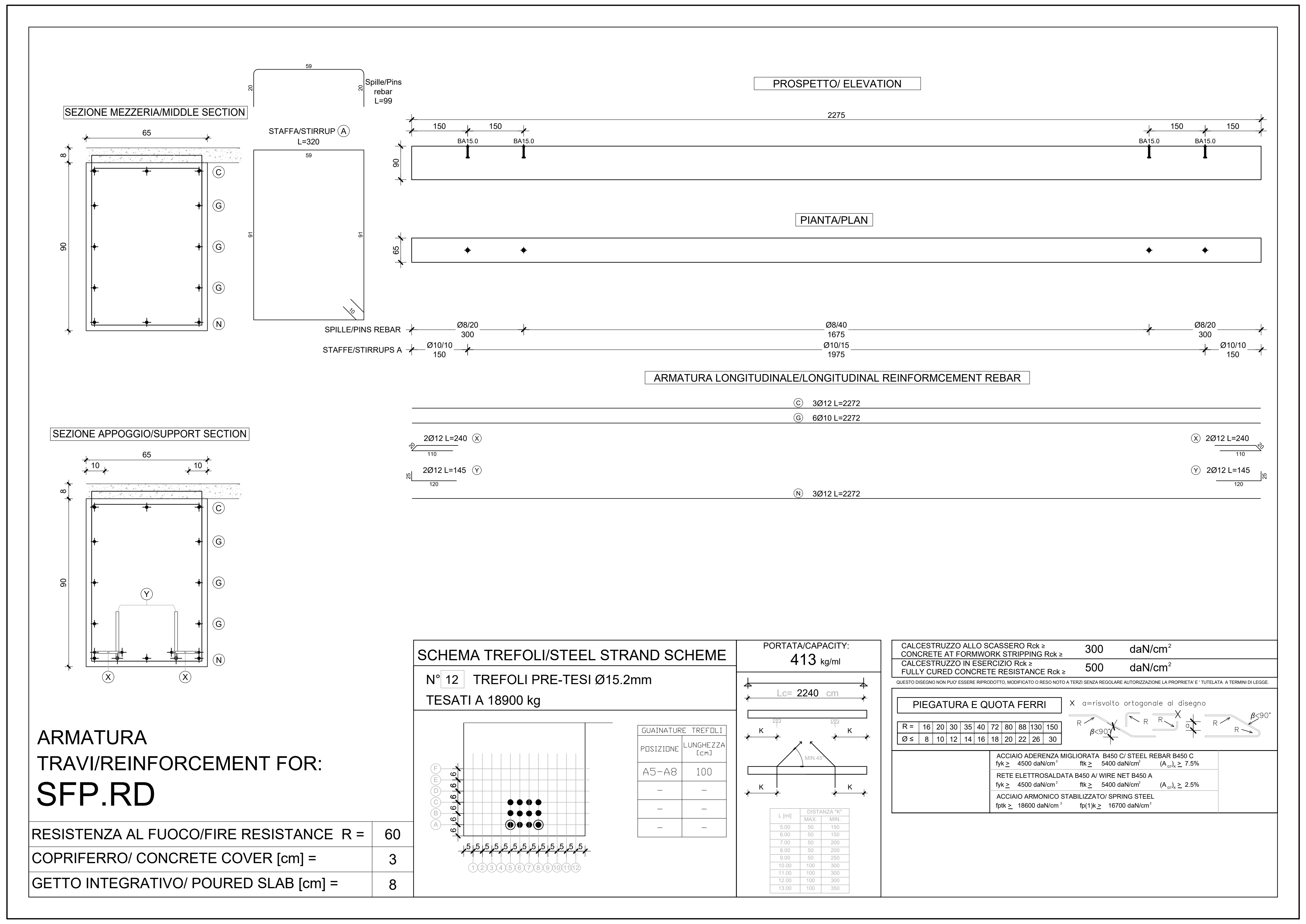
Project Title
MXP I-I

Drawing Title
Superstructure
L Beams - Geometry and Reinforcement

Project Status
ISSUED FOR CONSTRUCTION

Discipline: **Structural**
Status Code: **S5**
Project Number: **P10424**
Scale @ A0: -
Revision: **P02**
Drawing Number: **SF505**

A0 - Do not scale


SEZIONE MEZZERIA/MIDDLE SECTION
65
8
90
C
G
G
G
N
59
20
Spille/Pins rebar L=99
STAFFA/STIRRUP A L=320
59
91
91
10
PROSPETTO/ ELEVATION
2275
150
150
150
150
BA15.0
BA15.0
BA15.0
BA15.0
90
PIANTA/PLAN
65
SPILLE/PINS REBAR
Ø8/20 300
Ø8/40 1675
Ø8/20 300
STAFFE/STIRRUPS A
Ø10/10 150
Ø10/15 1975
Ø10/10 150
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORMCEMENT REBAR
C 3Ø12 L=2272
G 6Ø10 L=2272
2Ø12 L=240 X
20
110
2Ø12 L=145 Y
25
120
N 3Ø12 L=2272
SEZIONE APPOGGIO/SUPPORT SECTION
65
10
10
8
90
Y
X
X
F
E
D
C
B
A
6
5
1 2 3 4 5 6 7 8 9 10 11 12
K
MIN.45°

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.RD

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 12 TREFOLI PRE-TESI Ø15.2mm

TESATI A 18900 kg

GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
A5–A8	100
–	–
–	–
–	–

PORTATA/CAPACITY:
413 kg/ml

Lc= 2240 cm

L [ml]	DISTANZA "K" MAX.	DISTANZA "K" MIN.
5.00	50	150
6.00	50	150
7.00	50	200
8.00	50	200
9.00	50	250
10.00	100	300
11.00	100	300
12.00	100	300
13.00	100	350

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	300	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

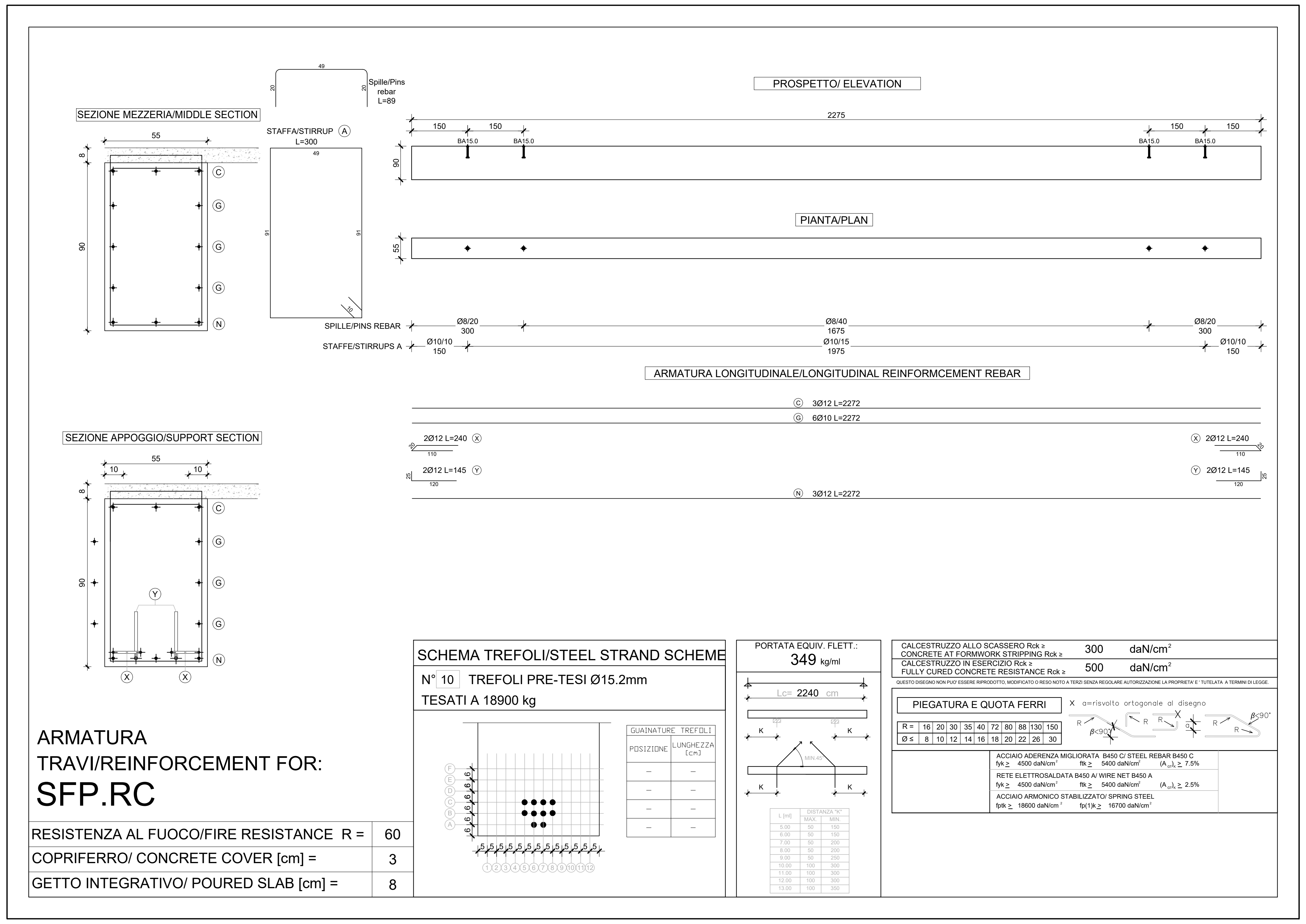
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


SEZIONE MEZZERIA/MIDDLE SECTION
55
8
90
C
G
G
G
N
49
20
Spille/Pins rebar L=89
STAFFA/STIRRUP A L=300
49
91
91
10
PROSPETTO/ ELEVATION
2275
150
150
150
150
BA15.0
BA15.0
BA15.0
BA15.0
90
PIANTA/PLAN
55
SPILLE/PINS REBAR
Ø8/20 300
Ø8/40 1675
Ø8/20 300
STAFFE/STIRRUPS A
Ø10/10 150
Ø10/15 1975
Ø10/10 150
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORMCEMENT REBAR
C 3Ø12 L=2272
G 6Ø10 L=2272
2Ø12 L=240 X
20
110
2Ø12 L=145 Y
25
120
N 3Ø12 L=2272
SEZIONE APPOGGIO/SUPPORT SECTION
55
10
10
8
90
Y
X
X
K
MIN.45

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.RC

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 10 TREFOLI PRE-TESI Ø15.2mm

TESATI A 18900 kg

GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
–	–
–	–
–	–
–	–

PORTATA EQUIV. FLETT.:
349 kg/ml

Lc= 2240 cm

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	300	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

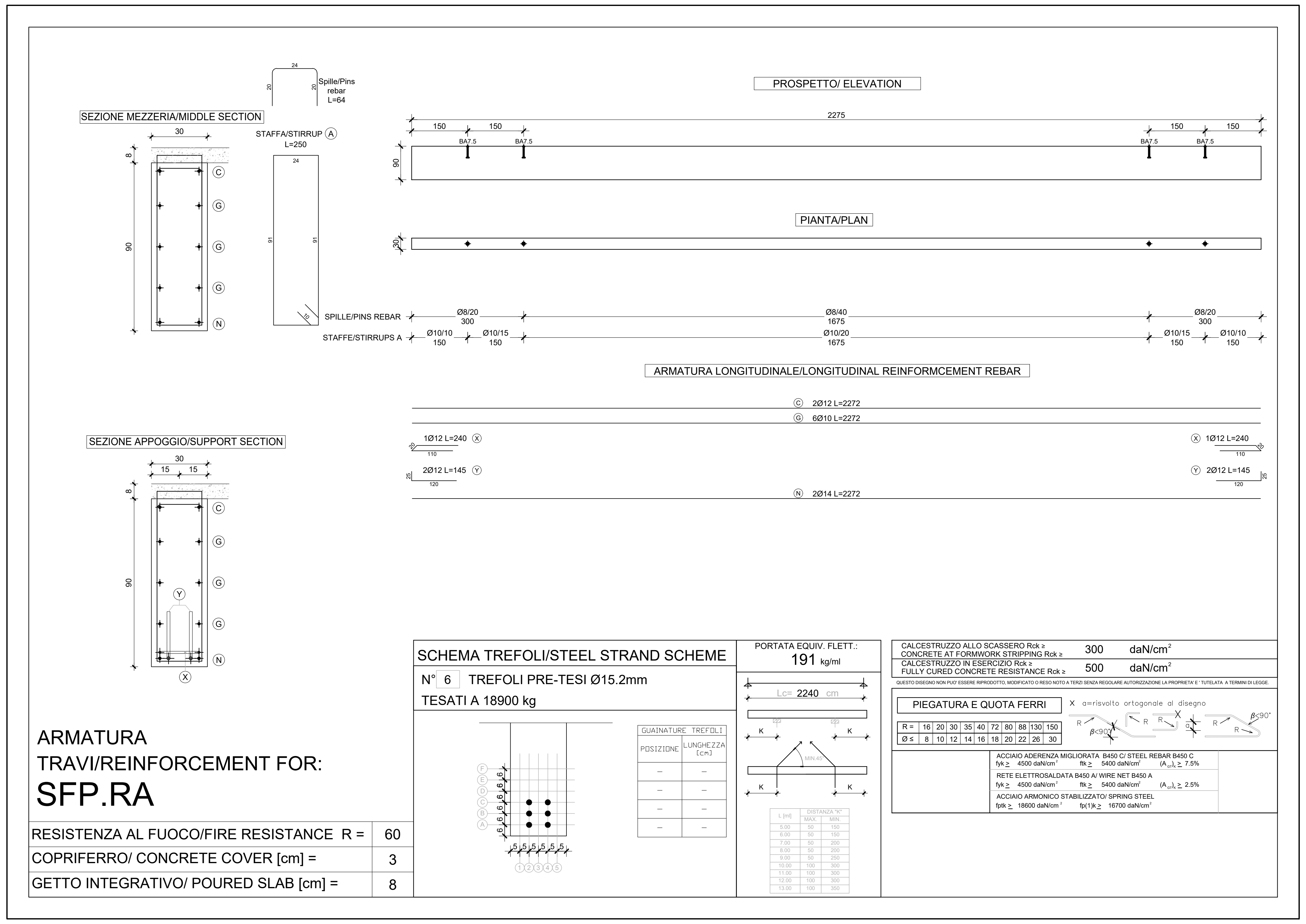
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


SEZIONE MEZZERIA/MIDDLE SECTION
30
8
90
C
G
G
G
N
24
20
Spille/Pins rebar L=64
STAFFA/STIRRUP A L=250
24
91
91
10
PROSPETTO/ ELEVATION
2275
150
150
150
150
BA7.5
BA7.5
BA7.5
BA7.5
90
PIANTA/PLAN
30
SPILLE/PINS REBAR
Ø8/20 300
Ø8/40 1675
Ø8/20 300
STAFFE/STIRRUPS A
Ø10/10 150
Ø10/15 150
Ø10/20 1675
Ø10/15 150
Ø10/10 150
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORMCEMENT REBAR
C 2Ø12 L=2272
G 6Ø10 L=2272
1Ø12 L=240 X
20
110
2Ø12 L=145 Y
25
120
N 2Ø14 L=2272
SEZIONE APPOGGIO/SUPPORT SECTION
30
15
15
8
90
Y
X
K
MIN.45

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.RA

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 6 TREFOLI PRE-TESI Ø15.2mm

TESATI A 18900 kg

GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
–	–
–	–
–	–
–	–

PORTATA EQUIV. FLETT.:
191 kg/ml

Lc= 2240 cm

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	300	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

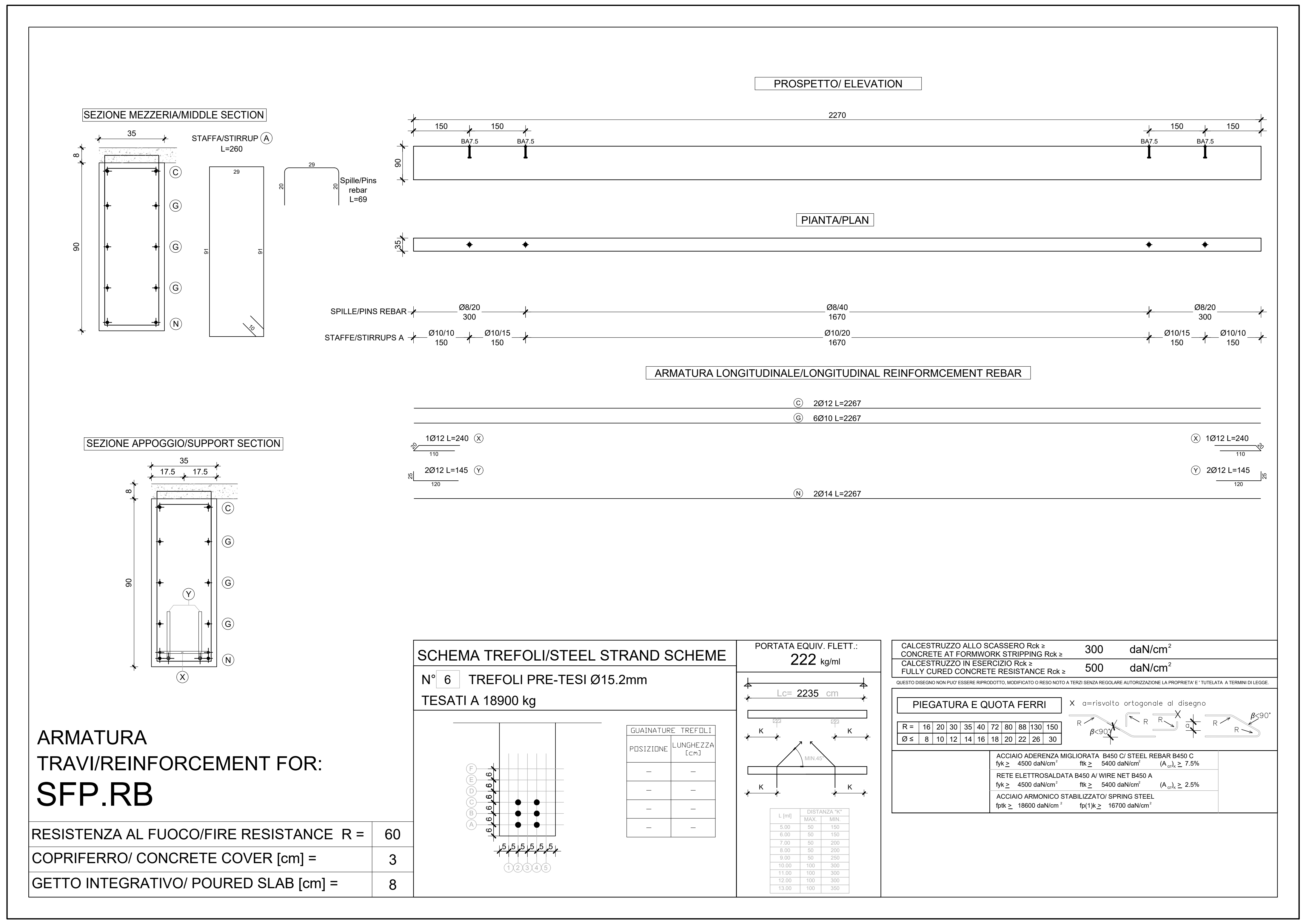
X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 2.5%

ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2


SEZIONE MEZZERIA/MIDDLE SECTION
35
8
90
C
G
G
G
N
STAFFA/STIRRUP A L=260
29
91
91
10
29
20
Spille/Pins rebar L=69
PROSPETTO/ ELEVATION
2270
150
150
150
150
BA7.5
BA7.5
BA7.5
BA7.5
90
PIANTA/PLAN
35
SPILLE/PINS REBAR
Ø8/20 300
Ø8/40 1670
Ø8/20 300
STAFFE/STIRRUPS A
Ø10/10 150
Ø10/15 150
Ø10/20 1670
Ø10/15 150
Ø10/10 150
ARMATURA LONGITUDINALE/LONGITUDINAL REINFORMCEMENT REBAR
C 2Ø12 L=2267
G 6Ø10 L=2267
1Ø12 L=240 X
20
110
2Ø12 L=145 Y
25
120
N 2Ø14 L=2267
SEZIONE APPOGGIO/SUPPORT SECTION
35
17.5
17.5
8
90
Y
X
K
MIN.45

ARMATURA
TRAVI/REINFORCEMENT FOR:
SFP.RB

RESISTENZA AL FUOCO/FIRE RESISTANCE R =	60
COPRIFERRO/ CONCRETE COVER [cm] =	3
GETTO INTEGRATIVO/ POURED SLAB [cm] =	8

SCHEMA TREFOLI/STEEL STRAND SCHEME

N° 6 TREFOLI PRE-TESI Ø15.2mm

TESATI A 18900 kg

GUAINATURE TREFOLI	
POSIZIONE	LUNGHEZZA [cm]
–	–
–	–
–	–
–	–

PORTATA EQUIV. FLETT.:
222 kg/ml

Lc= 2235 cm

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	300	daN/cm^2
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	500	daN/cm^2

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E ' TUTELATA A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI

X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Ø ≤	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 7.5%

RETE ELETTROSALDATA B450 A/ WIRE NET B450 A
fyk ≥ 4500 daN/cm^2 ftk ≥ 5400 daN/cm^2 $(A_{GT})_k \geq$ 2.5%

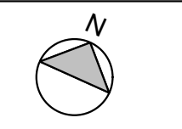
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm^2 fp(1)k ≥ 16700 daN/cm^2

General Notes

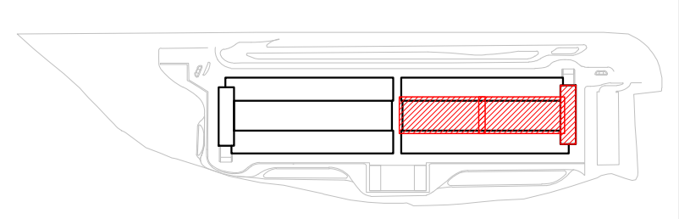
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Rectangular Beams
Geometry and Reinforcement

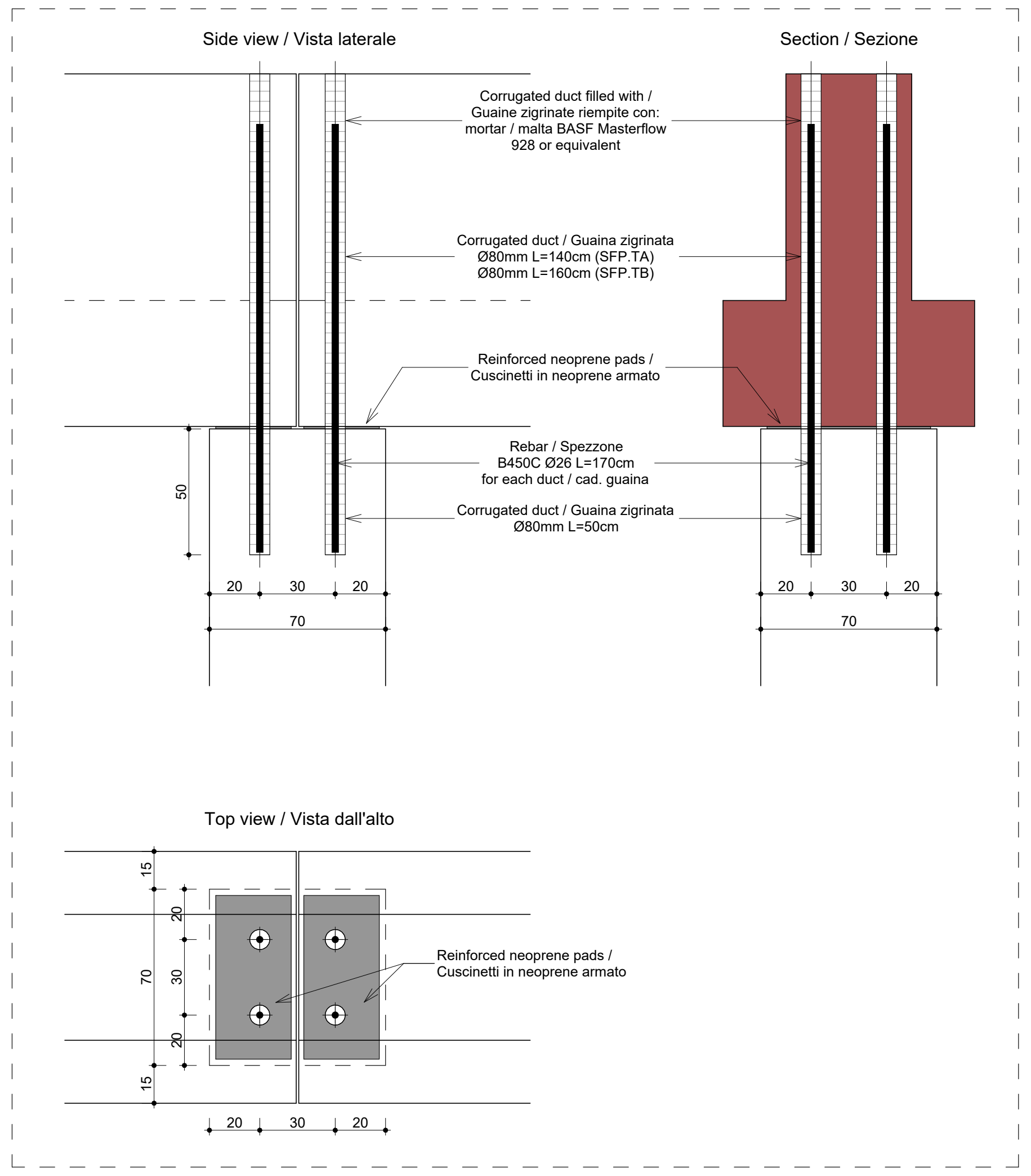
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	-	**P02**

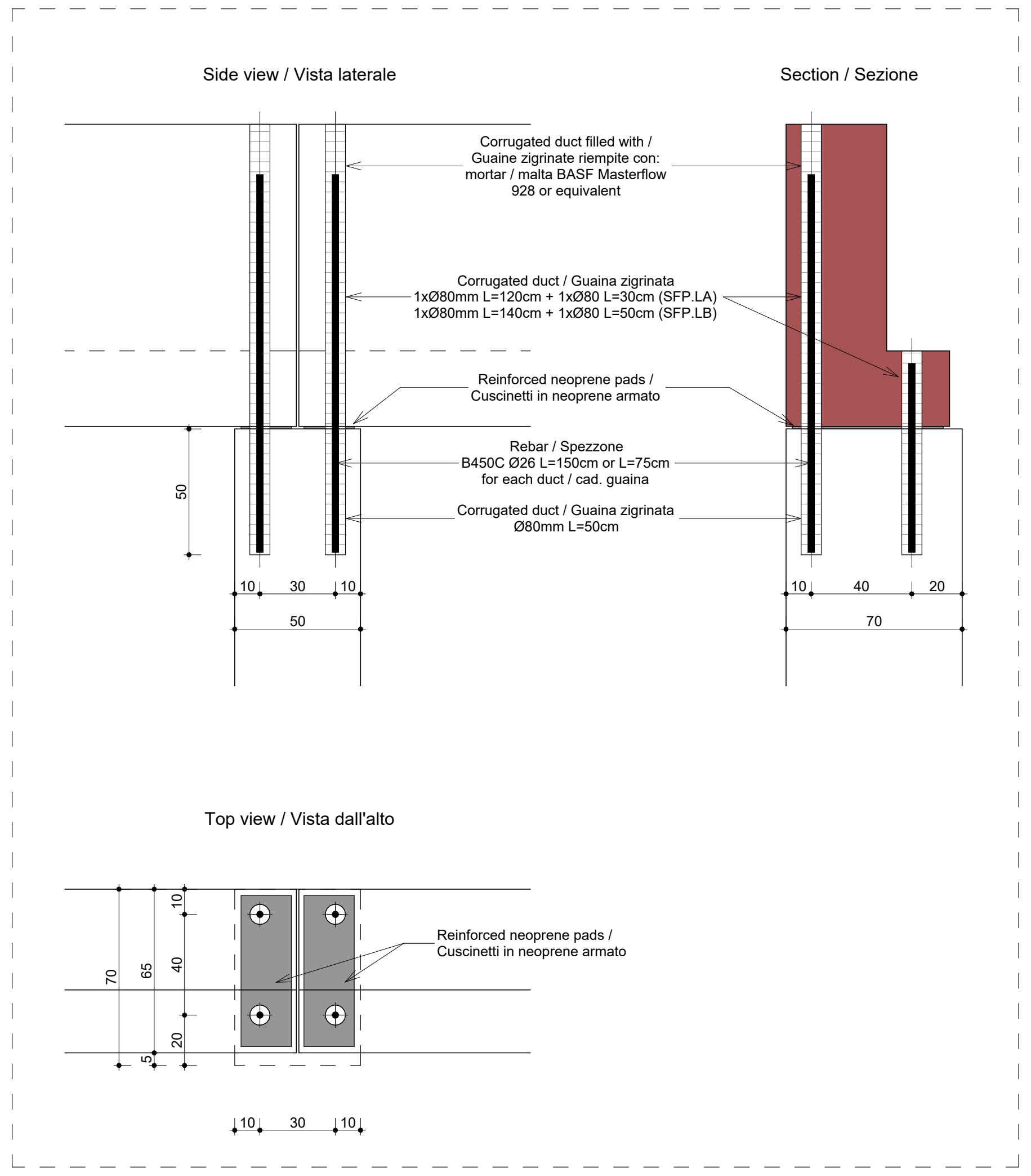
Drawing Number
SF506

A0 - Do not scale


Side view / Vista laterale
Section / Sezione
Corrugated duct filled with / Guaine zigrinate riempite con: mortar / malta BASF Masterflow 928 or equivalent
Corrugated duct / Guaina zigrinata Ø80mm L=140cm (SFP.TA) Ø80mm L=160cm (SFP.TB)
Reinforced neoprene pads / Cuscinetti in neoprene armato
Rebar / Spezzone B450C Ø26 L=170cm for each duct / cad. guaina
Corrugated duct / Guaina zigrinata Ø80mm L=50cm
50
20
30
20
70
Top view / Vista dall'alto
Reinforced neoprene pads / Cuscinetti in neoprene armato
15
20
70
30
20
15

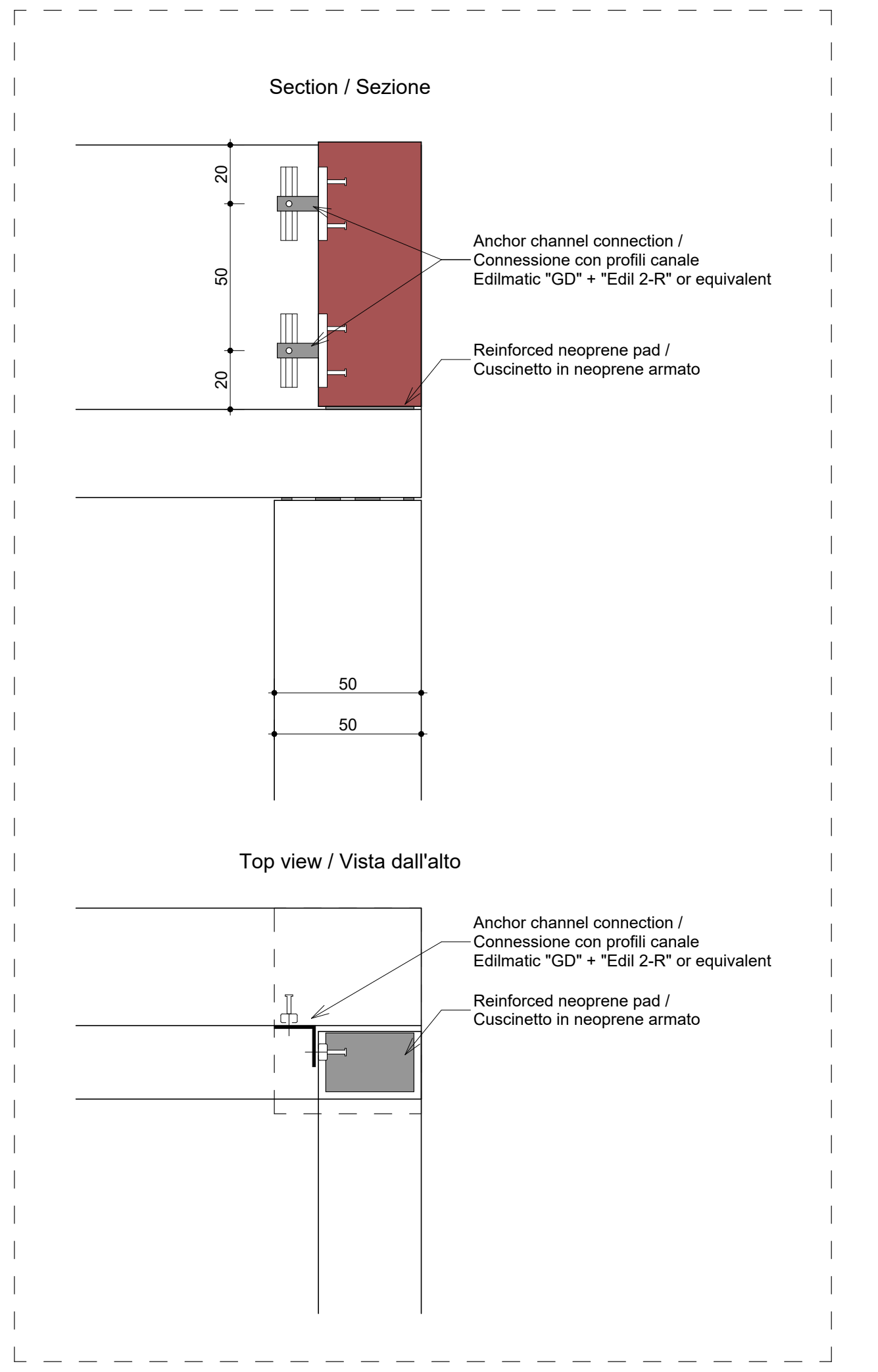
Precast "Tee" beam joint / Collegamento trave "T rovescia" - pilastro

1 : 20


Side view / Vista laterale
Section / Sezione
Corrugated duct filled with / Guaine zigrinate riempite con: mortar / malta BASF Masterflow 928 or equivalent
Corrugated duct / Guaina zigrinata 1xØ80mm L=120cm + 1xØ80 L=30cm (SFP.LA) 1xØ80mm L=140cm + 1xØ80 L=50cm (SFP.LB)
Reinforced neoprene pads / Cuscinetti in neoprene armato
Rebar / Spezzone B450C Ø26 L=150cm or L=75cm for each duct / cad. guaina
Corrugated duct / Guaina zigrinata Ø80mm L=50cm
50
10
30
10
50
40
20
70
Top view / Vista dall'alto
Reinforced neoprene pads / Cuscinetti in neoprene armato
70
65
10
40
20
5

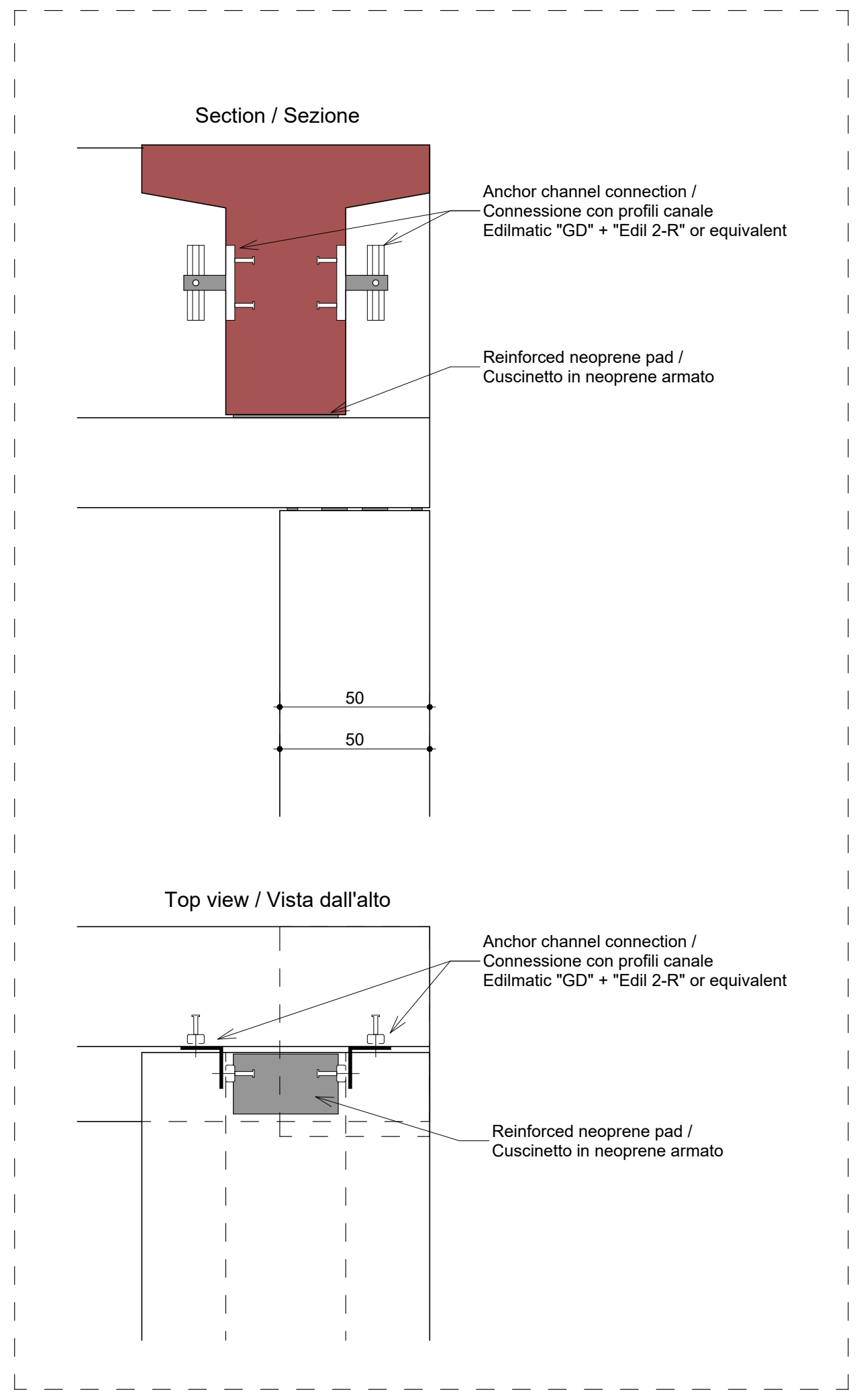
Precast L beam joint / Collegamento trave ad L - pilastro

1 : 20


Section / Sezione
20
50
20
Anchor channel connection / Connessione con profili canale Edilmatic "GD" + "Edil 2-R" or equivalent
Reinforced neoprene pad / Cuscinetto in neoprene armato
50
50
Top view / Vista dall'alto
Anchor channel connection / Connessione con profili canale Edilmatic "GD" + "Edil 2-R" or equivalent
Reinforced neoprene pad / Cuscinetto in neoprene armato

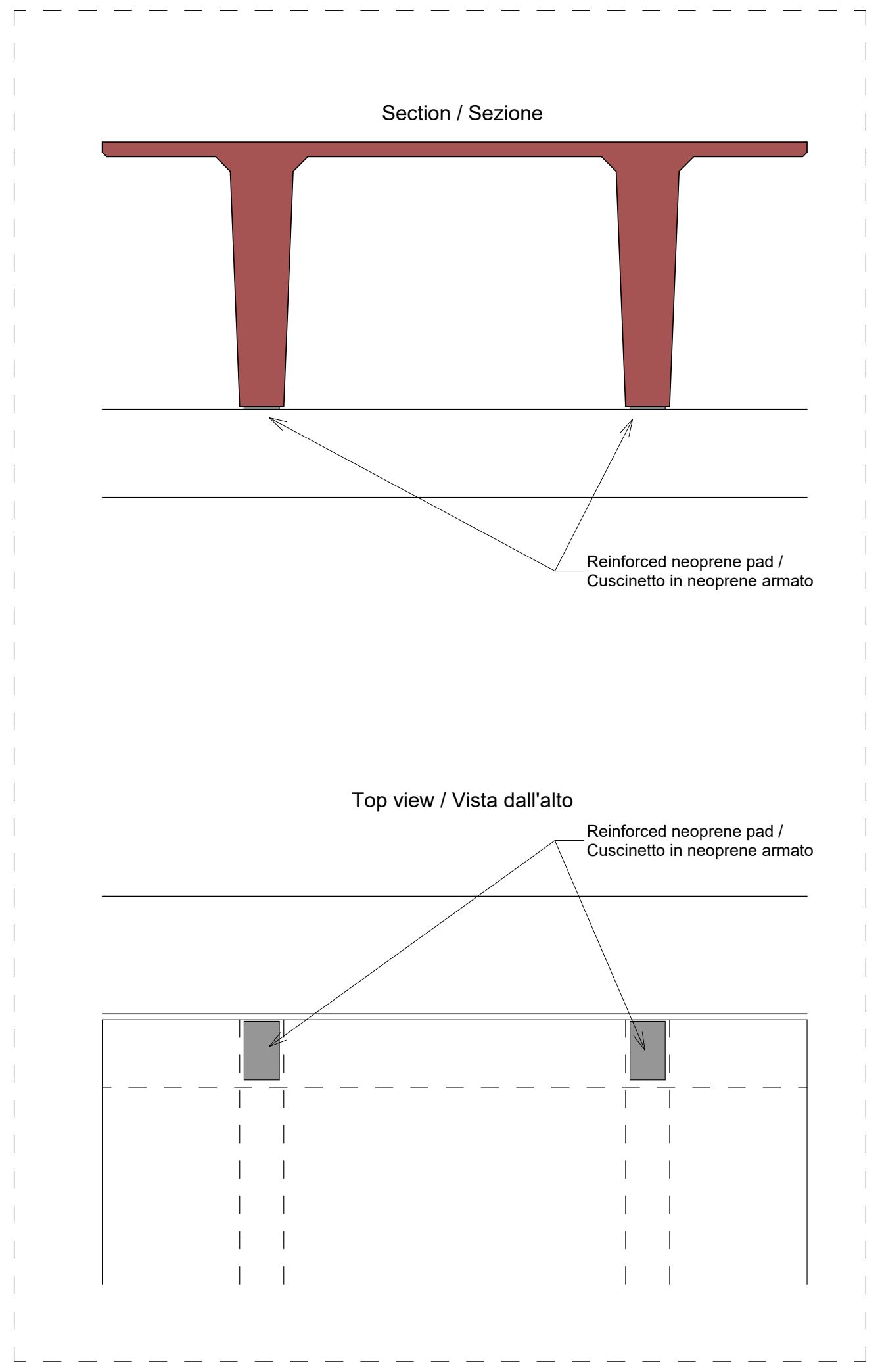
Precast rectangular beam joint / Collegamento trave rett. - pilastro

1 : 20


Section / Sezione
Anchor channel connection / Connessione con profili canale Edilmatic "GD" + "Edil 2-R" or equivalent
Reinforced neoprene pad / Cuscinetto in neoprene armato
50
50
Top view / Vista dall'alto
Anchor channel connection / Connessione con profili canale Edilmatic "GD" + "Edil 2-R" or equivalent
Reinforced neoprene pad / Cuscinetto in neoprene armato

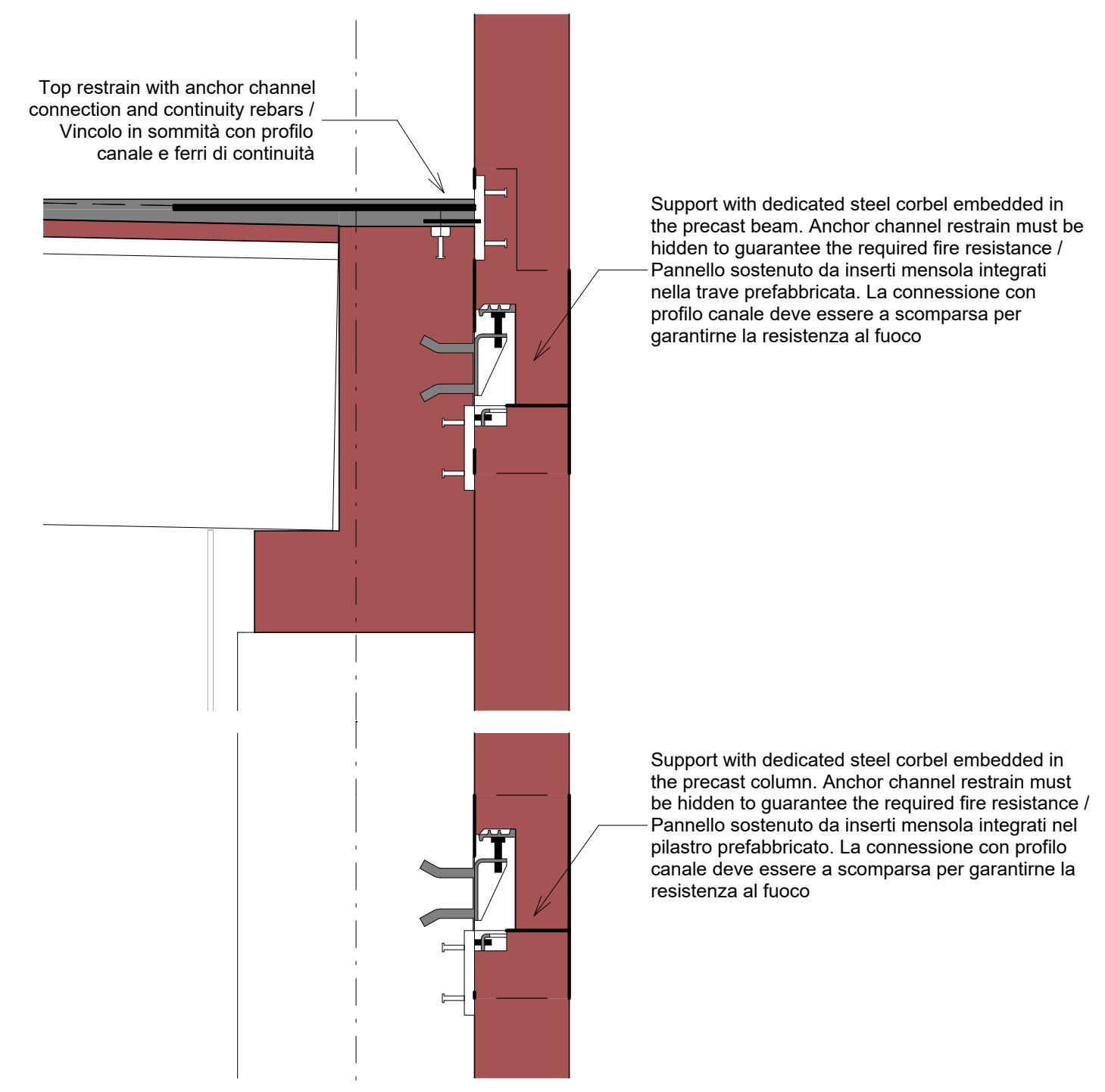
Precast SFP.TC beam joint / Collegamento trave SFP.TC - trave primaria

1 : 20


Section / Sezione
Reinforced neoprene pad / Cuscinetto in neoprene armato
Top view / Vista dall'alto
Reinforced neoprene pad / Cuscinetto in neoprene armato

Precast "Double Tee" beam joint / Collegamento tegolo TT - trave primaria

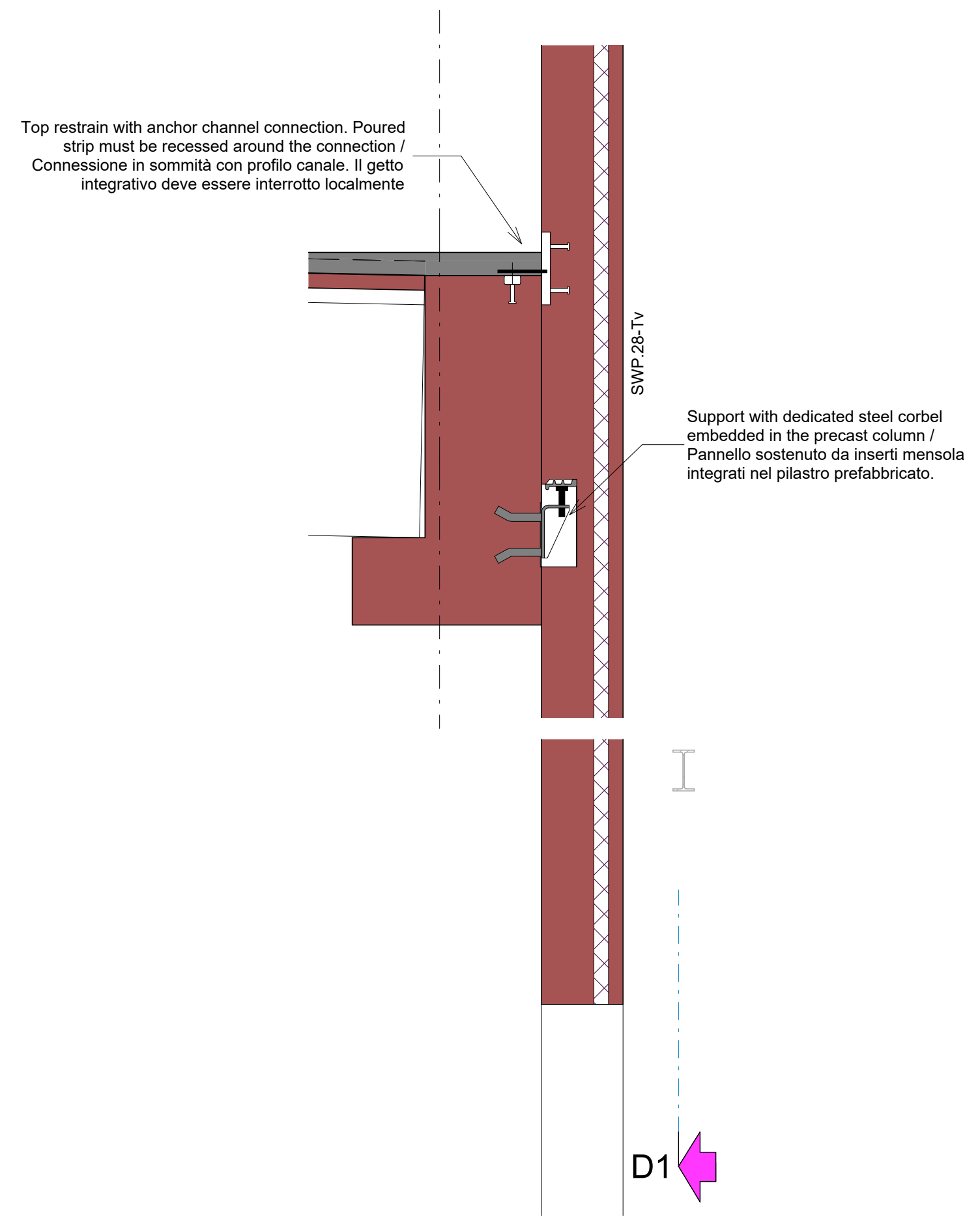
1 : 20


Top restrain with anchor channel connection and continuity rebars / Vincolo in sommità con profilo canale e ferri di continuità
Support with dedicated steel corbel embedded in the precast beam. Anchor channel restrain must be hidden to guarantee the required fire resistance / Pannello sostenuto da inserti mensola integrati nella trave prefabbricata. La connessione con profilo canale deve essere a scomparsa per garantirne la resistenza al fuoco
Support with dedicated steel corbel embedded in the precast column. Anchor channel restrain must be hidden to guarantee the required fire resistance / Pannello sostenuto da inserti mensola integrati nel pilastro prefabbricato. La connessione con profilo canale deve essere a scomparsa per garantirne la resistenza al fuoco

Detail valid for the following precast panels /
Dettaglio valido per i seguenti pannelli prefabbricati:
SWP.28-Lh

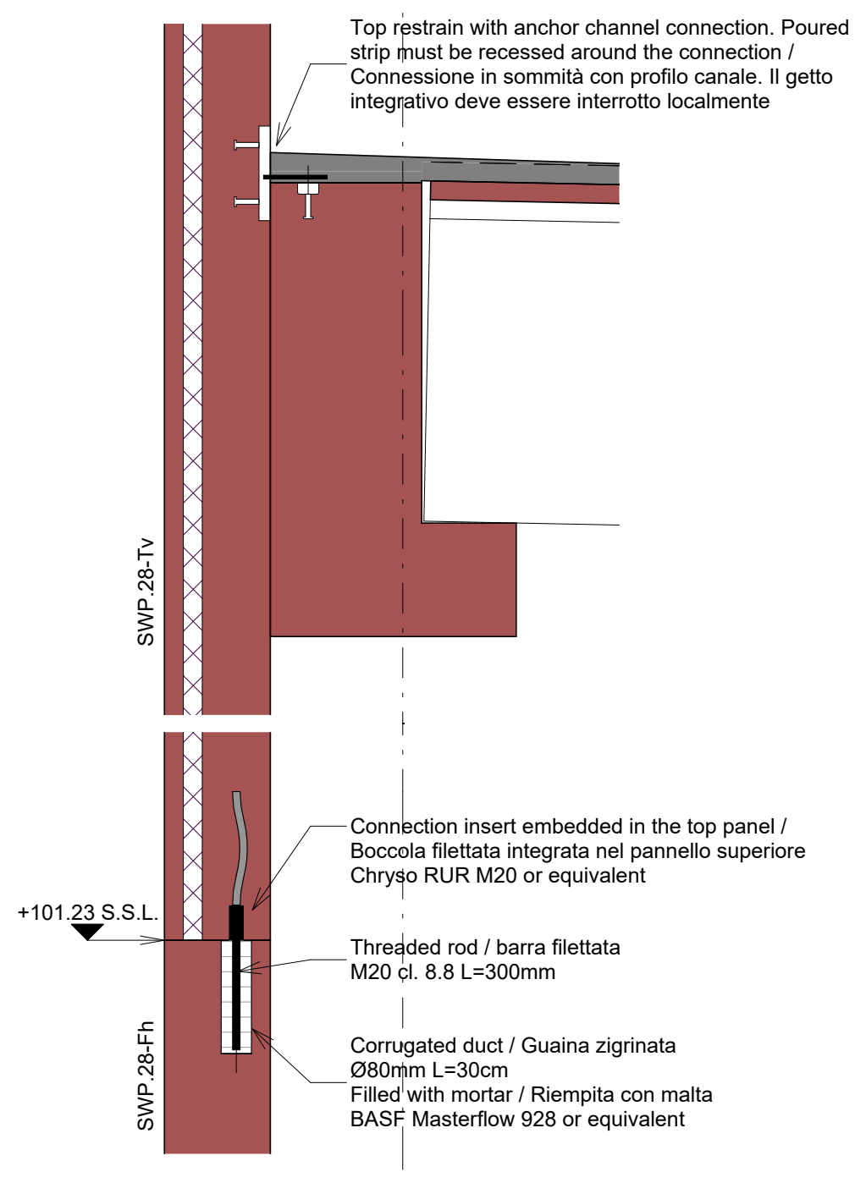
Sect. / Sez. - Horiz. panels support / Sostegno pannelli orizzontali -

1 : 20


Top restrain with anchor channel connection. Poured strip must be recessed around the connection / Connessione in sommità con profilo canale. Il getto integrativo deve essere interrotto localmente
SWP.28-Tv
Support with dedicated steel corbel embedded in the precast column / Pannello sostenuto da inserti mensola integrati nel pilastro prefabbricato.
D1

Vertical suspended panels support / Sistema di appensione per pannelli verticali sospesi

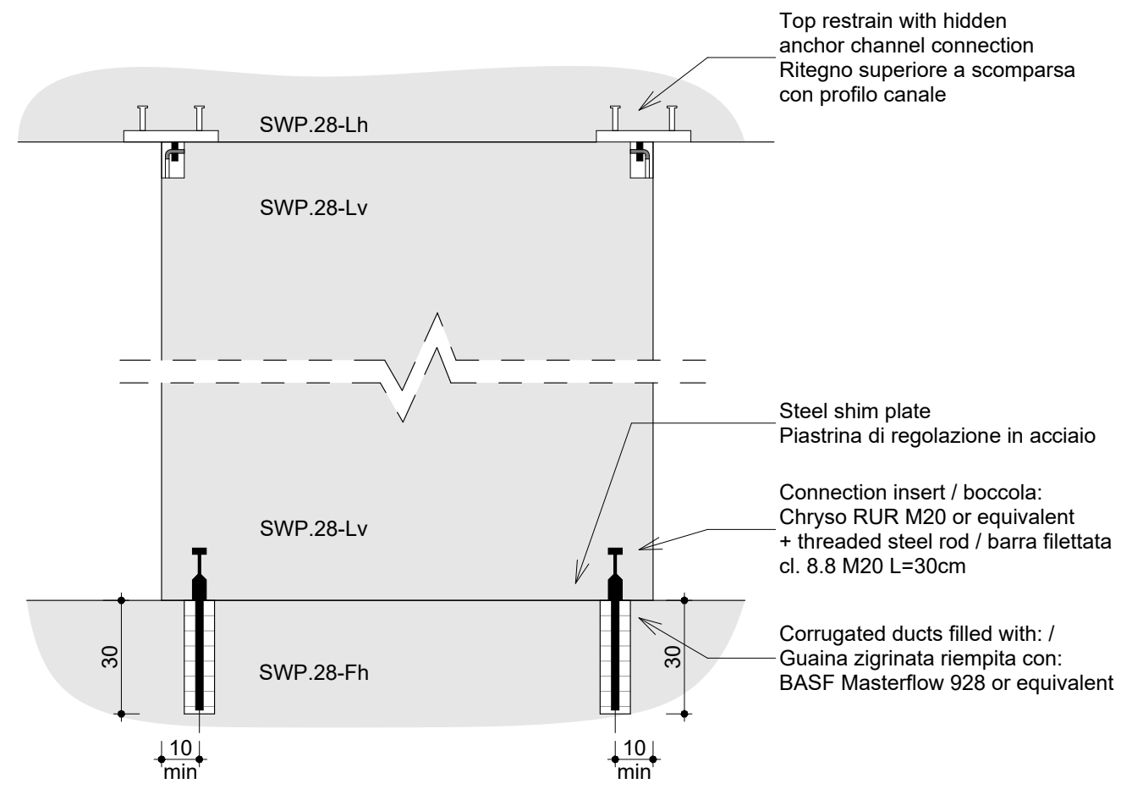
1 : 20


Top restrain with anchor channel connection. Poured strip must be recessed around the connection / Connessione in sommità con profilo canale. Il getto integrativo deve essere interrotto localmente
SWP.28-Tv
Connection insert embedded in the top panel / Boccola filettata integrata nel pannello superiore Chryso RUR M20 or equivalent
+101.23 S.S.L.
Threaded rod / barra filettata M20 cl. 8.8 L=300mm
Corrugated duct / Guaina zigrinata Ø80mm L=30cm Filled with mortar / Riempita con malta BASF Masterflow 928 or equivalent
SWP.28-Fh

Detail valid for the following precast panels /
Dettaglio valido per i seguenti pannelli prefabbricati:
SWP.28-Tv and SWP.28-Lv

Vertical panels support / Appoggio pannelli verticali

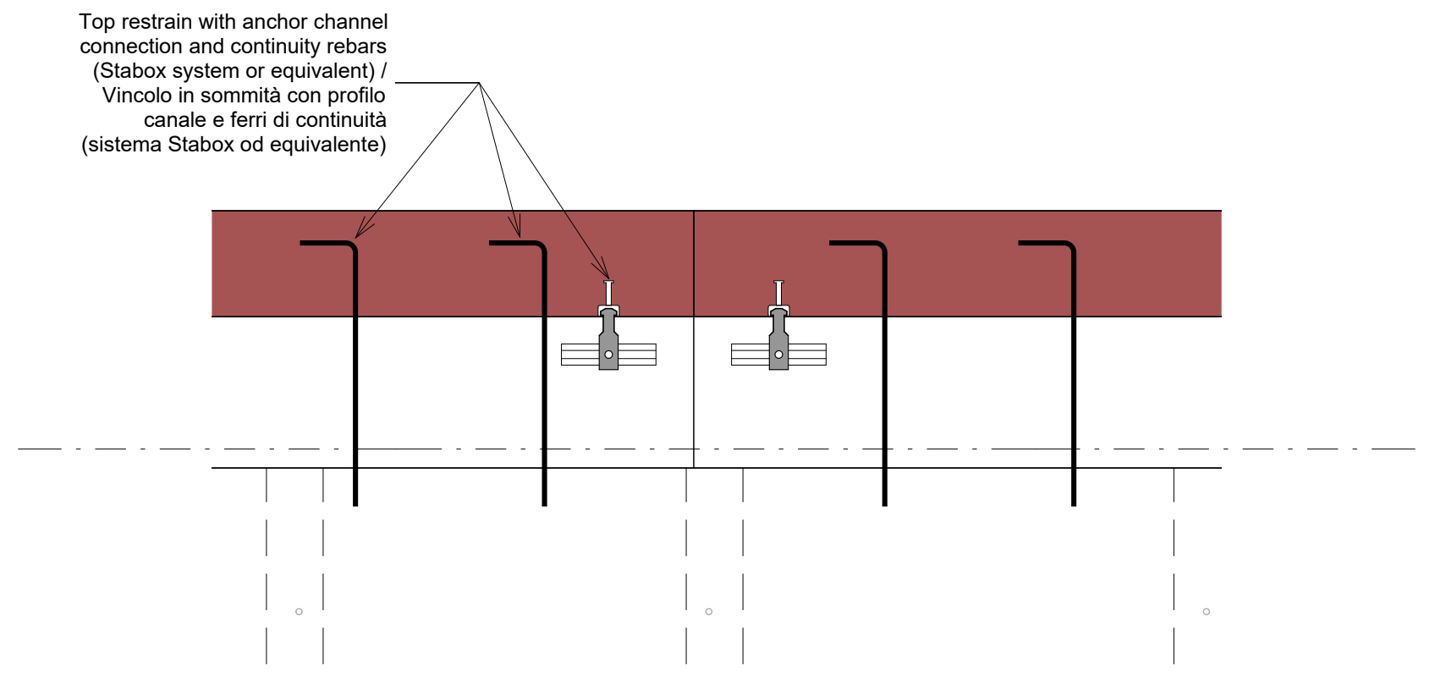
1 : 20


Top restrain with hidden anchor channel connection Ritegno superiore a scomparsa con profilo canale
SWP.28-Lh
SWP.28-Lv
SWP.28-Lv
Steel shim plate Piastrina di regolazione in acciaio
Connection insert / boccola: Chryso RUR M20 or equivalent + threaded steel rod / barra filettata cl. 8.8 M20 L=30cm
Corrugated ducts filled with: / Guaina zigrinata riempita con: BASF Masterflow 928 or equivalent
SWP.28-Fh
30
30
10 min
10 min

**Precast panel must be held in place with props /
il pannello prefabbricato deve essere puntellato**

Data hall precast panels support - 1st row / Appoggio pannelli Data Hall - Fila inferiore

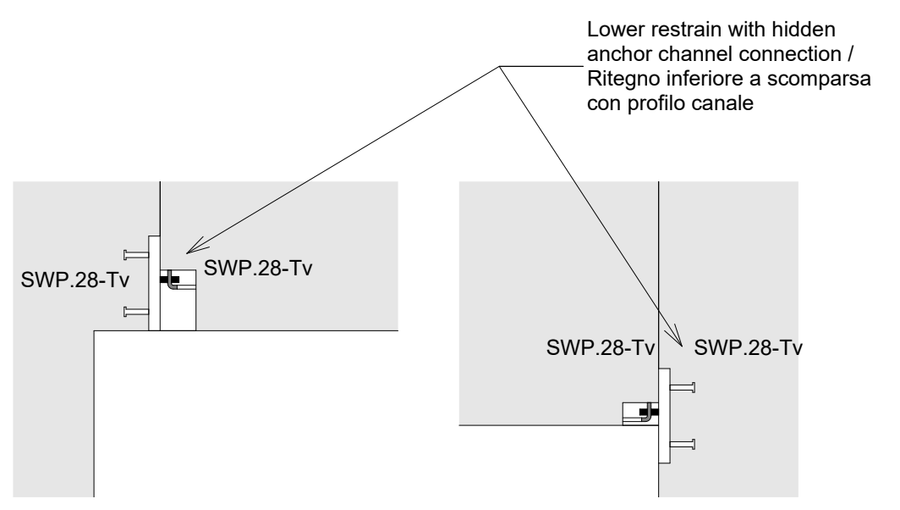
1 : 20


Top restrain with anchor channel connection and continuity rebars (Stabox system or equivalent) / Vincolo in sommità con profilo canale e ferri di continuità (sistema Stabox od equivalente)

Detail valid for the following precast panels /
Dettaglio valido per i seguenti pannelli prefabbricati:
SWP.28-Lh

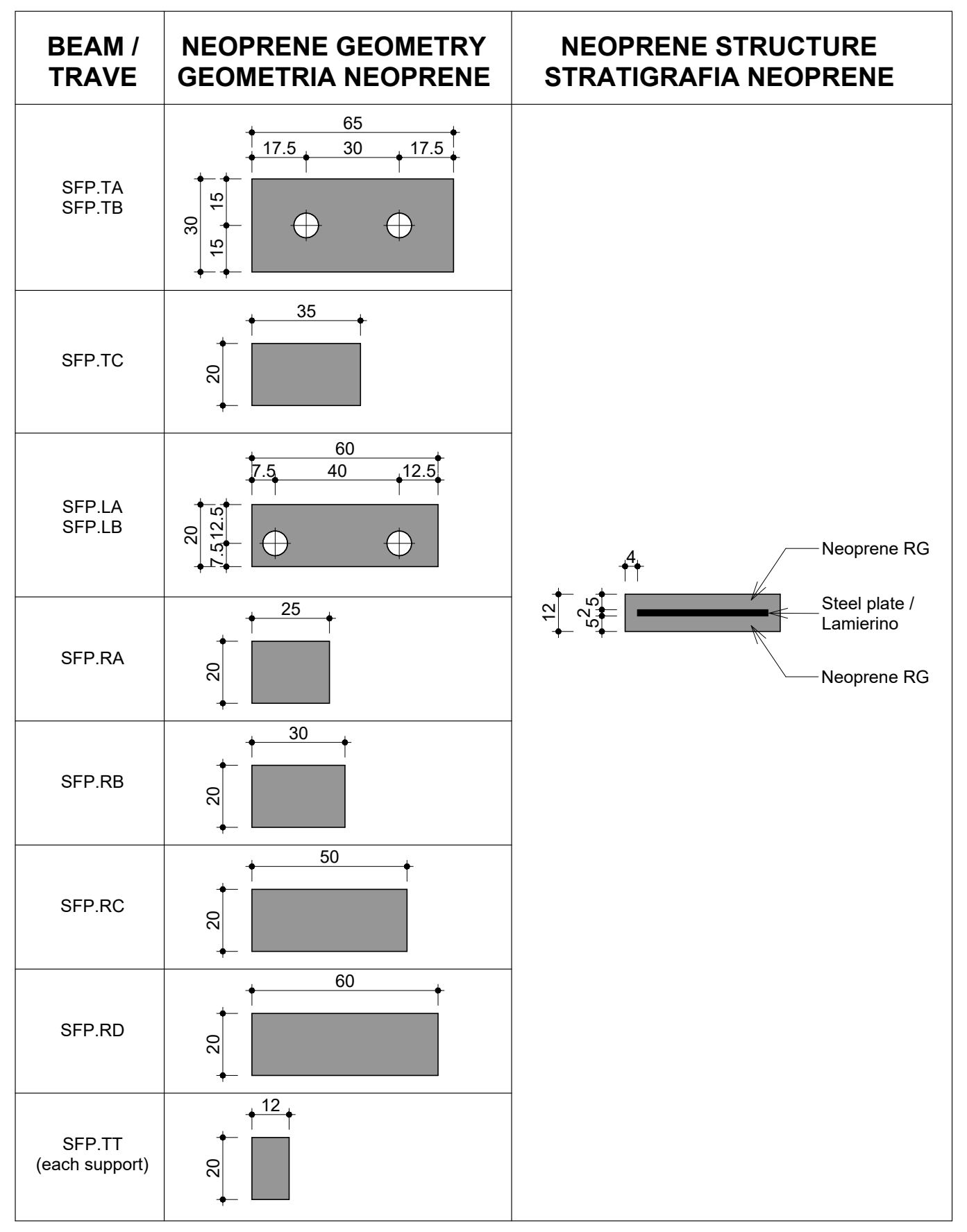
R3_STsup-DH ST117 - Dettaglio 1 - Top view / Vista dall'alto -

1 : 20


Lower restrain with hidden anchor channel connection / Ritegno inferiore a scomparsa con profilo canale
SWP.28-Tv
SWP.28-Tv
SWP.28-Tv
SWP.28-Tv

Detail D1 / Dettaglio D1

1 : 20



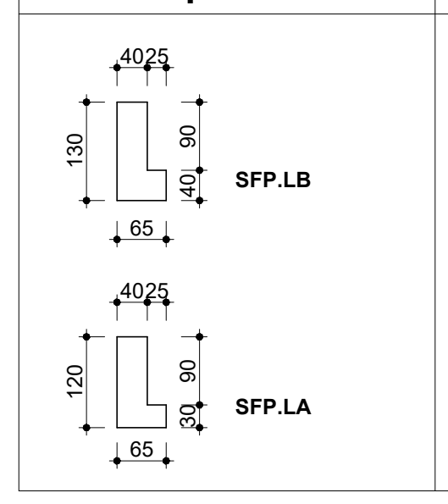
BEAM / TRAVE	NEOPRENE GEOMETRY GEOMETRIA NEOPRENE	NEOPRENE STRUCTURE STRATIGRAFIA NEOPRENE
SFP.TA SFP.TB	65 (17.5 / 30 / 17.5) × 30 (15 / 15)	Neoprene RG / Steel plate / Lamierino / Neoprene RG; 12 (5 / 2 / 5); 4
SFP.TC	35 × 20	
SFP.LA SFP.LB	60 (7.5 / 40 / 12.5) × 20 (12.5 / 7.5)	
SFP.RA	25 × 20	
SFP.RB	30 × 20	
SFP.RC	50 × 20	
SFP.RD	60 × 20	
SFP.TT (each support)	12 × 20	

Precast concrete panels stratigraphy
Stratigrafia dei pannelli prefabbricati

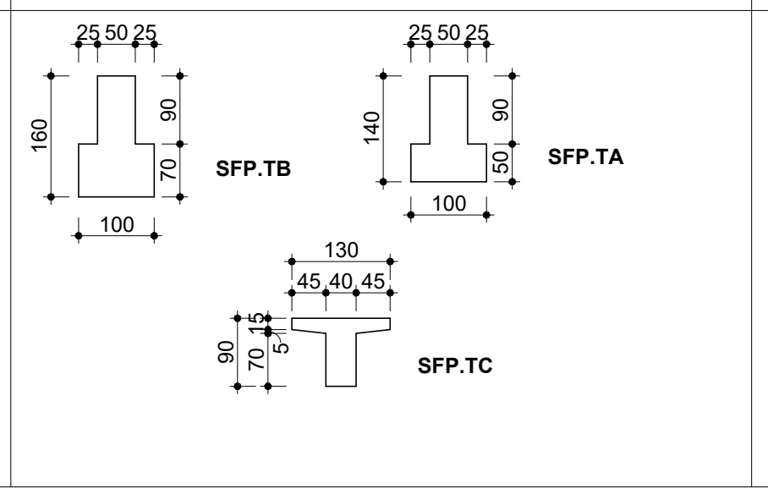
Panel	Stratigraphy
SWP.28-Tv ▨	P.r.c./C.a.v. 5cm Insulation/Isolamento 5cm (*) P.r.c./C.a.v. 18cm with lightening/ con alleggerimento (*) Vertical precast panel - Thermal break Pannelli pref. verticali a taglio termico
SWP.28-Lv ▨	P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Vertical precast panel - Lightened Pannelli pref. verticali alleggeriti
SWP.28-Fh ▨	P.r.c./C.a.v. 28cm Horizontal precast panel - Filled Pannelli pref. orizzontali pieni
SWP.28-Lh ▨	P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Horizontal precast panel - Lightened Pannelli pref. orizzontali alleggeriti

(*) Insulation and lightening of the precast panels must locally have a fire reaction class of not less than A2-s1,d0. Please check the drawing FS102 for the vertical strips for which this requirement applies / L'isolante e l'alleggerimento dei pannelli prefabbricati devono avere localmente una classe di reazione al fuoco uguale o superiore a A2-s1, d0. Si faccia riferimento alla tavola FS102 per le fascie verticali interessate.

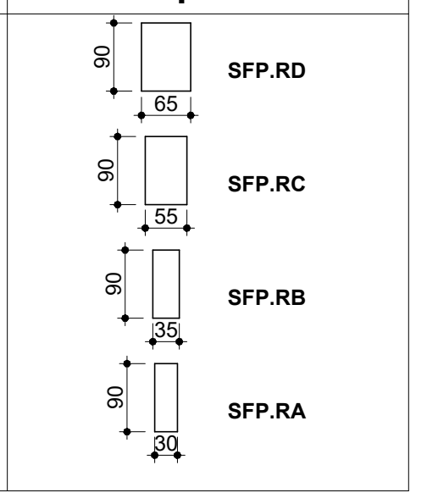
"L" precast beams Travi pref. a "L"


4025
130
90
40
65
SFP.LB
4025
120
90
30
65
SFP.LA

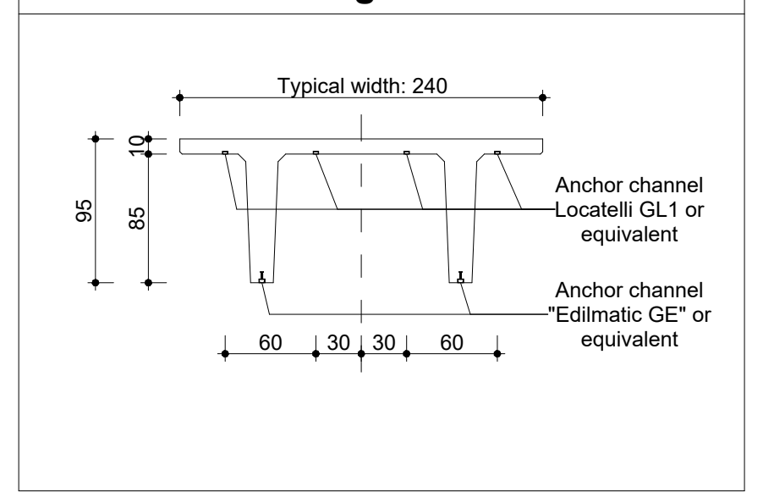
"Tee" precast beams Travi pref. a "T"


25 50 25
160
90
70
100
SFP.TB
25 50 25
140
90
50
100
SFP.TA
130
45 40 45
90
15
70
5
SFP.TC

Rect. precast beams Travi pref. rett.


90
65
SFP.RD
90
55
SFP.RC
90
35
SFP.RB
90
30
SFP.RA

Double "Tee" precast beams Tegoli "TT"


Typical width: 240
95
10
85
Anchor channel Locatelli GL1 or equivalent
Anchor channel "Edilmatic GE" or equivalent
60
30
30
60

Ga Plans Legend / Legenda Carpenteria

▬	Cast in place concrete section element / Sezione elementi gettati in opera
▭	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
☐	Lean concrete element view / Sezione elementi magrone
🟨	BASF Masterflow 928 or equivalent structural mortar / malta strutturale
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
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3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
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5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
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7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

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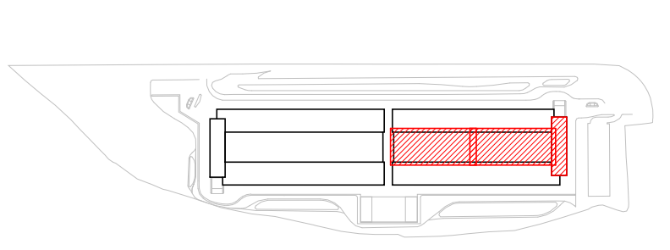
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600
SCALE 1:150
N

Key Plan



Precast details may be modified by precast manufacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision / I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FIBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FIBH/MEG	16/12/2022

Client
COMPASS datacenters

Architectural / Civil / Structural
MAESTRALE
STARCHING
ARIATTA
Redesco Structural Engineering

Lead Consultant / MEP Designer
Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

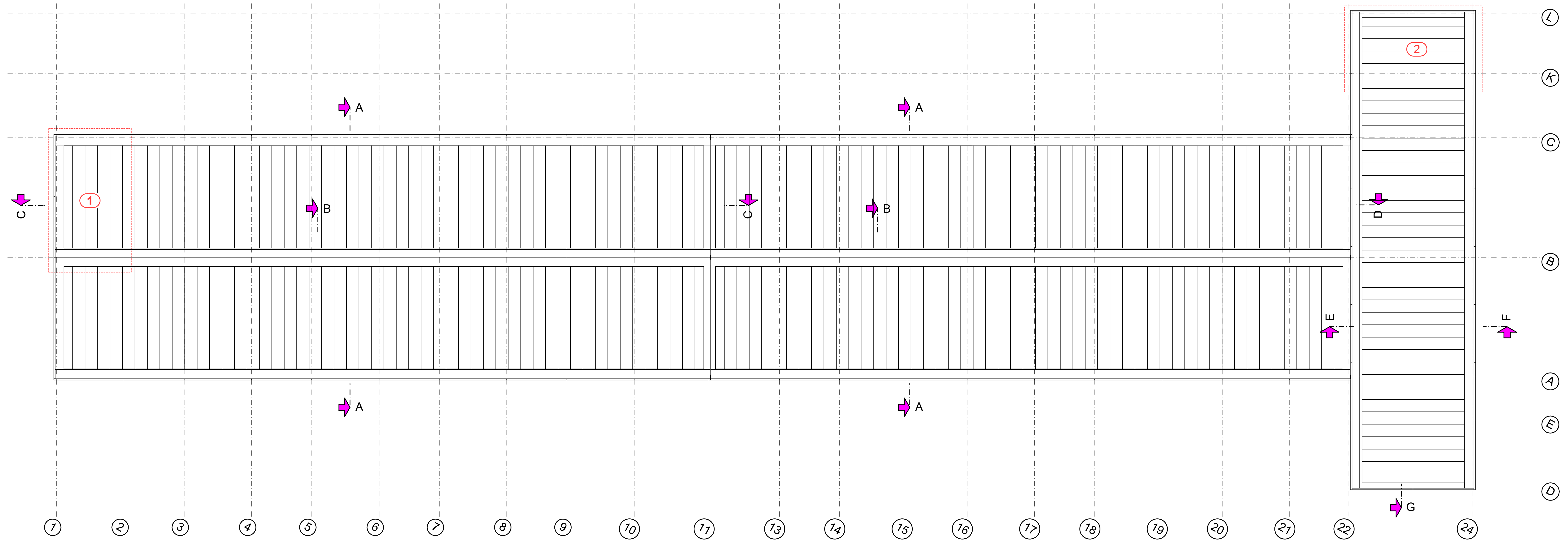
Project Title
MXP I-I

Drawing Title
Superstructure
Precast Connections - Joints and Details

Project Status
ISSUED FOR CONSTRUCTION

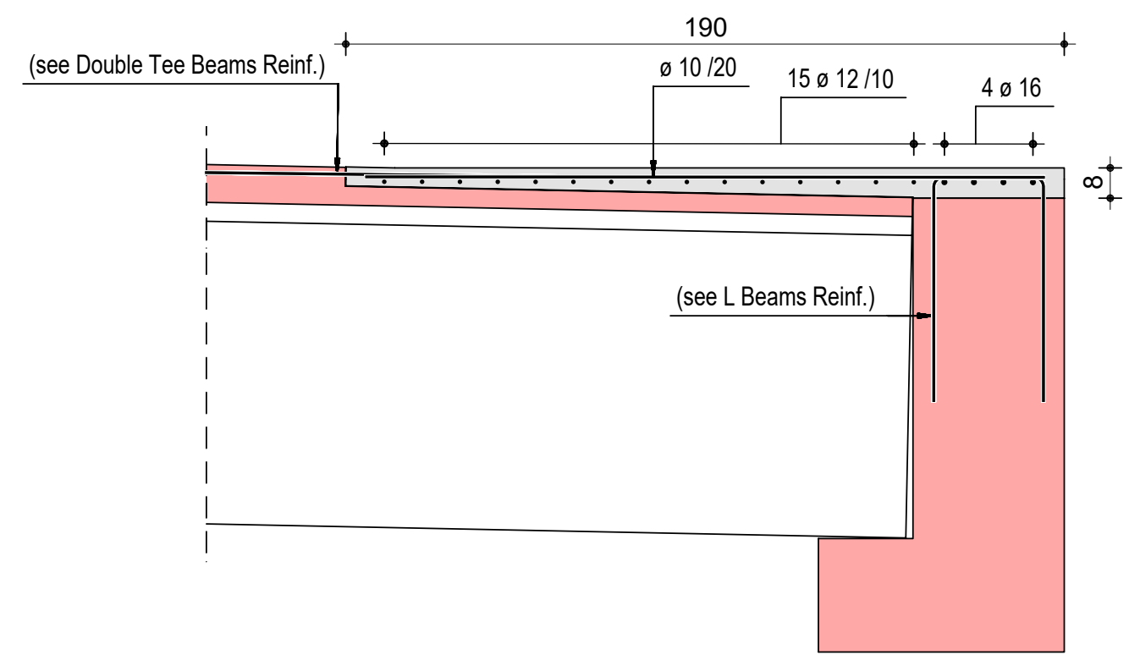
Discipline: **Structural**
Status Code: **S5**
Project Number: **P10424**
Scale @ A0: **1:20**
Revision: **P02**
Drawing Number: **SF507**

A0 - Do not scale

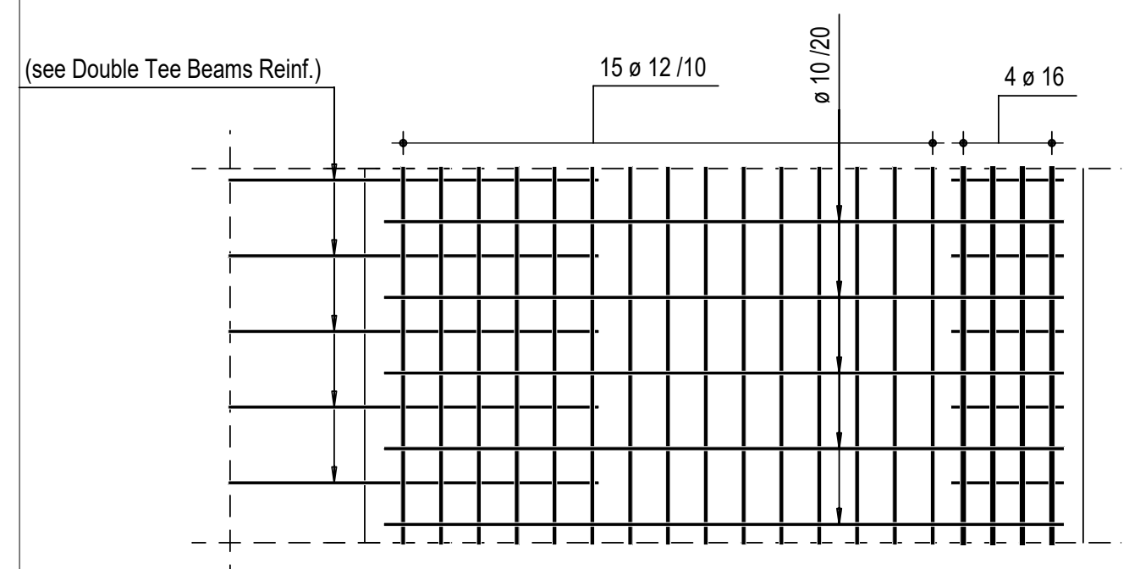

1
2
A
B
C
D
E
F
G
K
L
1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20 21 22 24

KEYPLAN / *PIANTA CHIAVE*
1:400

DETAIL / *DETTAGLIO* -A-

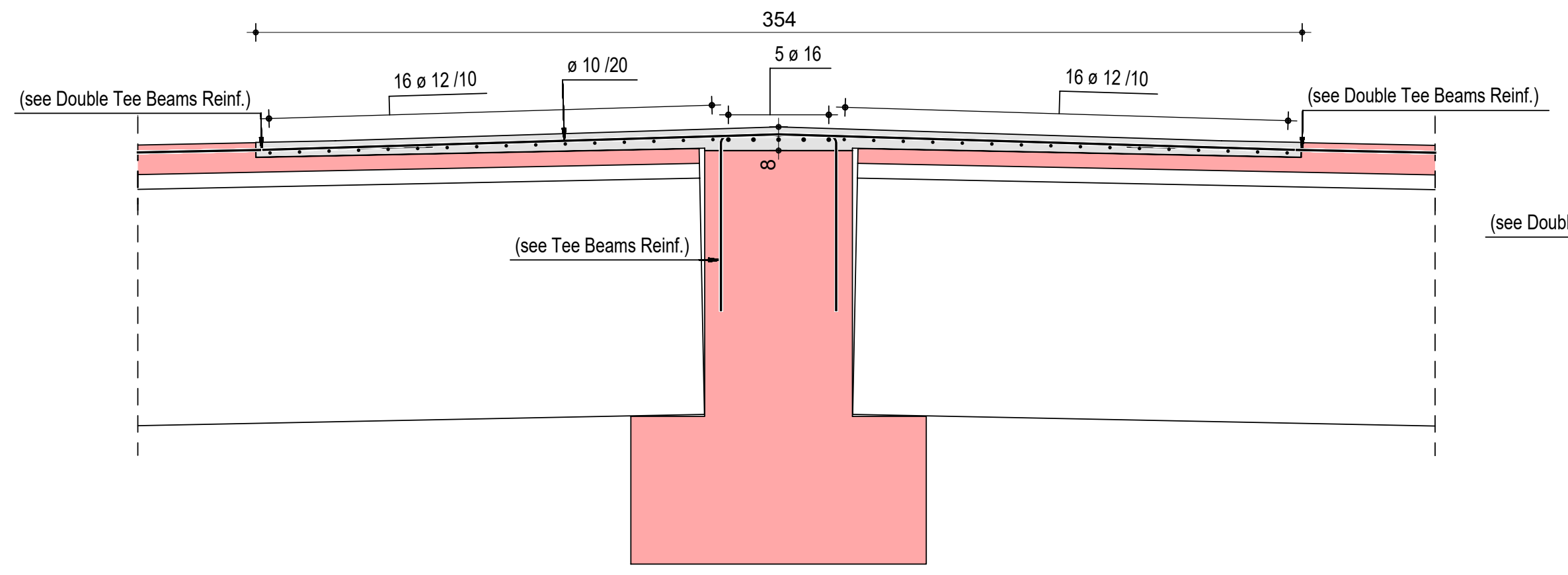

190
(see Double Tee Beams Reinf.)
ø 10 /20
15 ø 12 /10
4 ø 16
8
(see L Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20

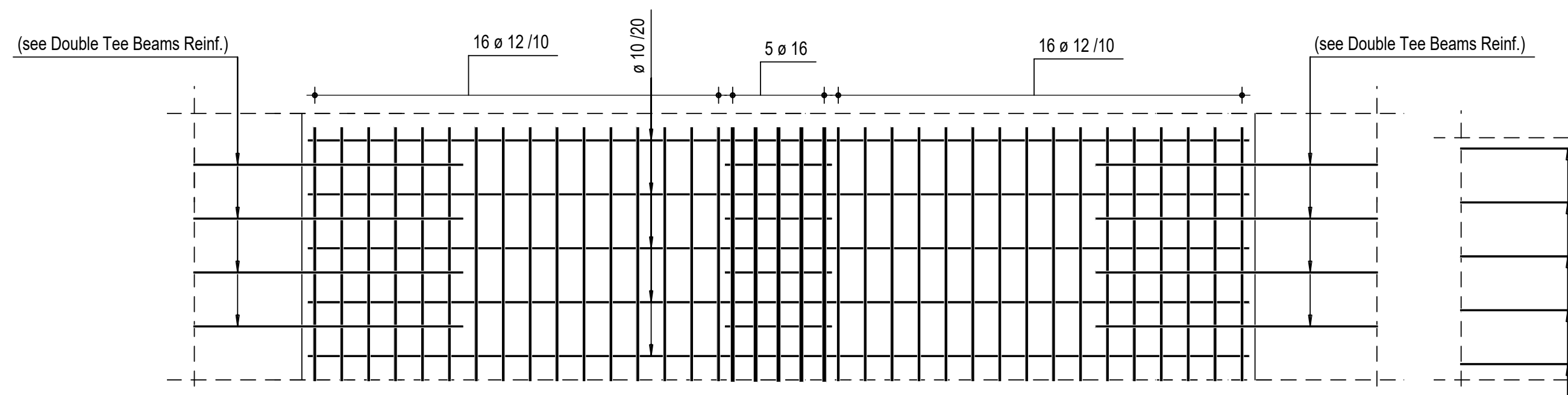

(see Double Tee Beams Reinf.)
15 ø 12 /10
ø 10 /20
4 ø 16

TOP VIEW
VISTA DA SOPRA
1:20

DETAIL / *DETTAGLIO* -B-

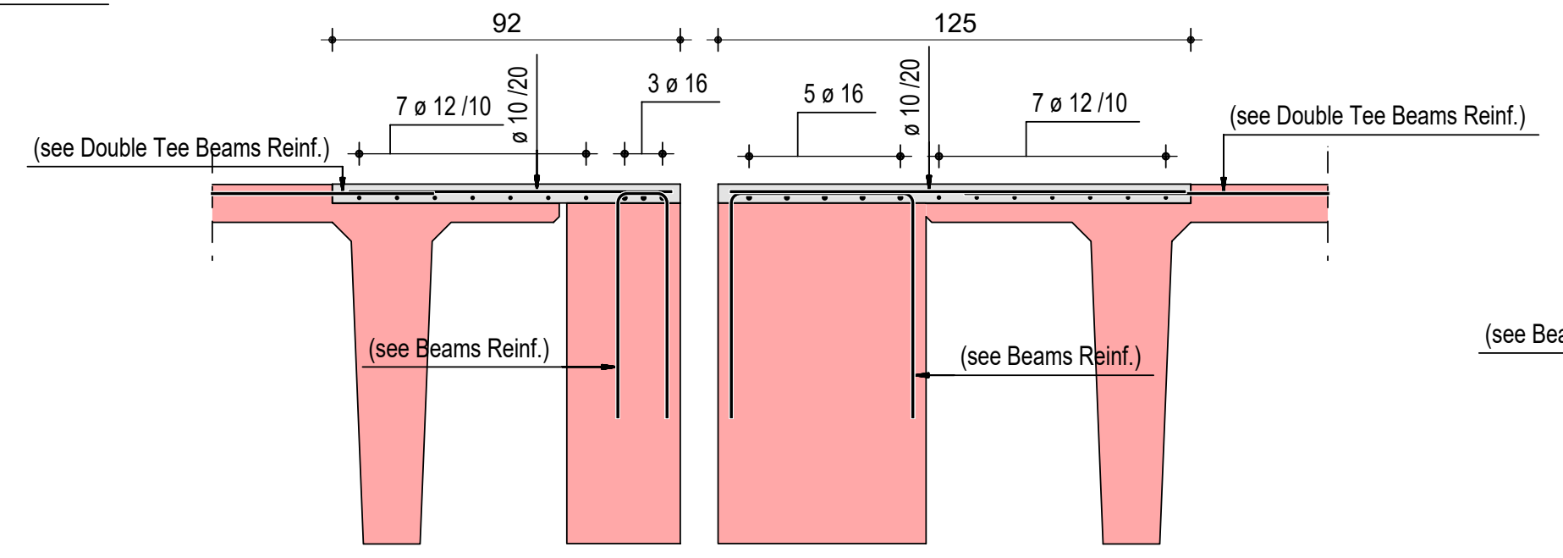

354
(see Double Tee Beams Reinf.)
16 ø 12 /10
ø 10 /20
5 ø 16
16 ø 12 /10
(see Double Tee Beams Reinf.)
40
(see Tee Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20

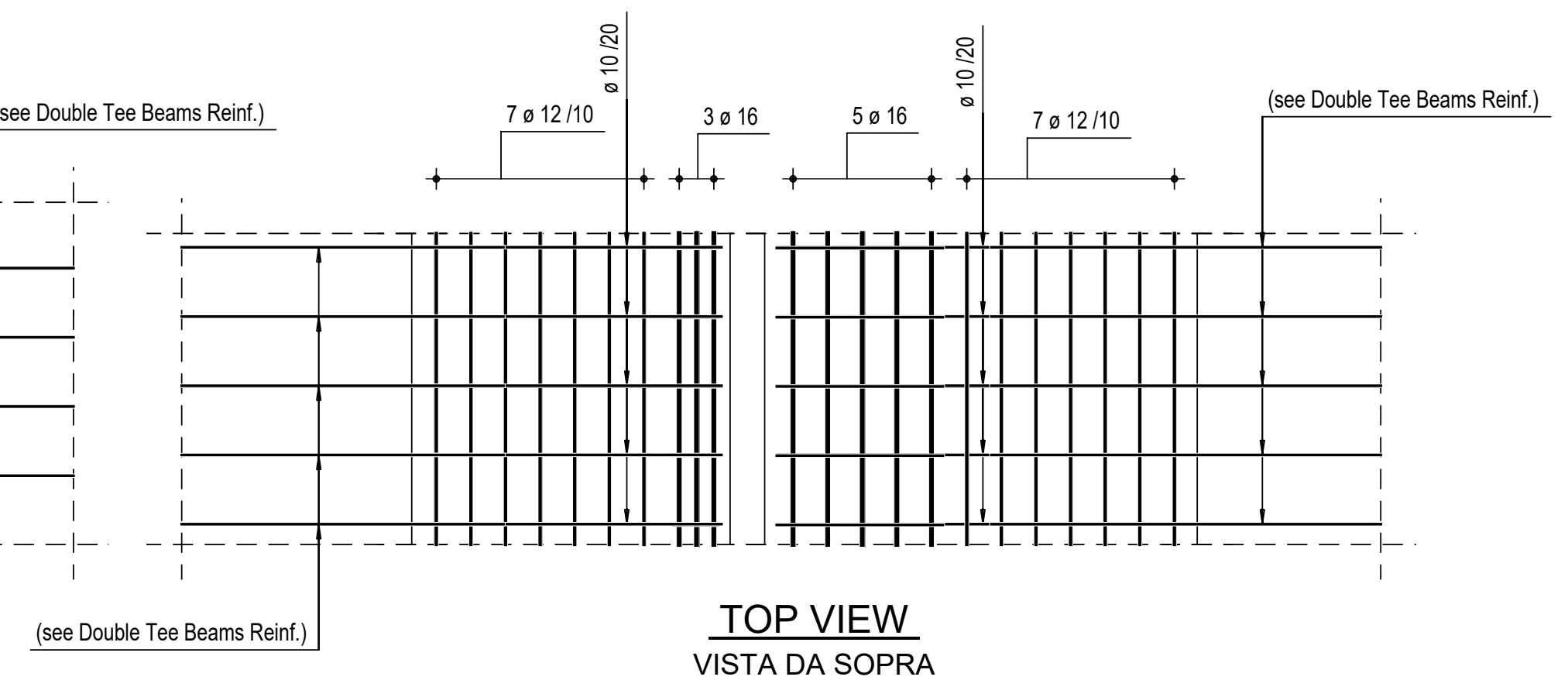

(see Double Tee Beams Reinf.)
16 ø 12 /10
ø 10 /20
5 ø 16
16 ø 12 /10
(see Double Tee Beams Reinf.)

TOP VIEW
VISTA DA SOPRA
1:20

DETAIL / *DETTAGLIO* -C-

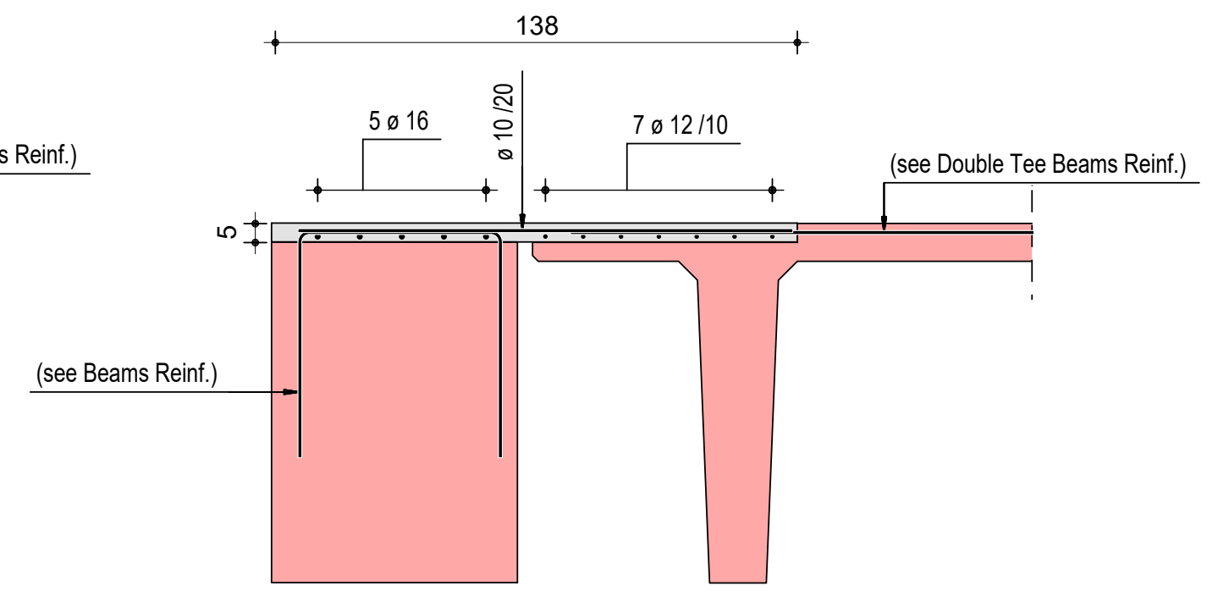

92
125
7 ø 12 /10
ø 10 /20
3 ø 16
5 ø 16
ø 10 /20
7 ø 12 /10
(see Double Tee Beams Reinf.)
(see Double Tee Beams Reinf.)
(see Beams Reinf.)
(see Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20

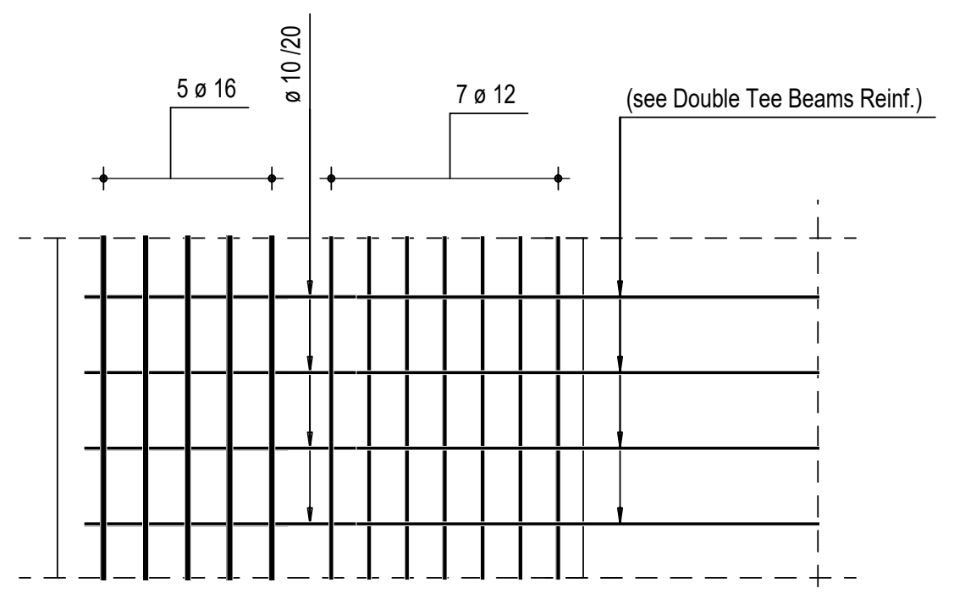

7 ø 12 /10
ø 10 /20
3 ø 16
5 ø 16
ø 10 /20
7 ø 12 /10
(see Double Tee Beams Reinf.)
(see Double Tee Beams Reinf.)

TOP VIEW
VISTA DA SOPRA
1:20

DETAIL / *DETTAGLIO* -D-

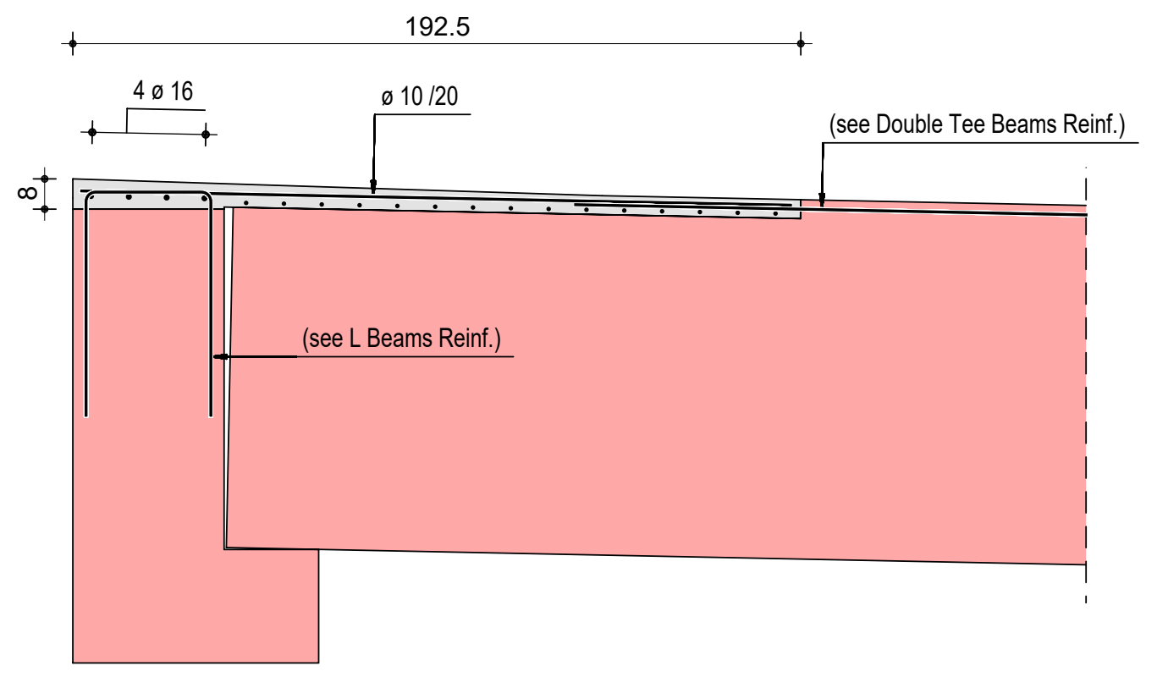

138
5 ø 16
ø 10 /20
7 ø 12 /10
(see Double Tee Beams Reinf.)
5
(see Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20

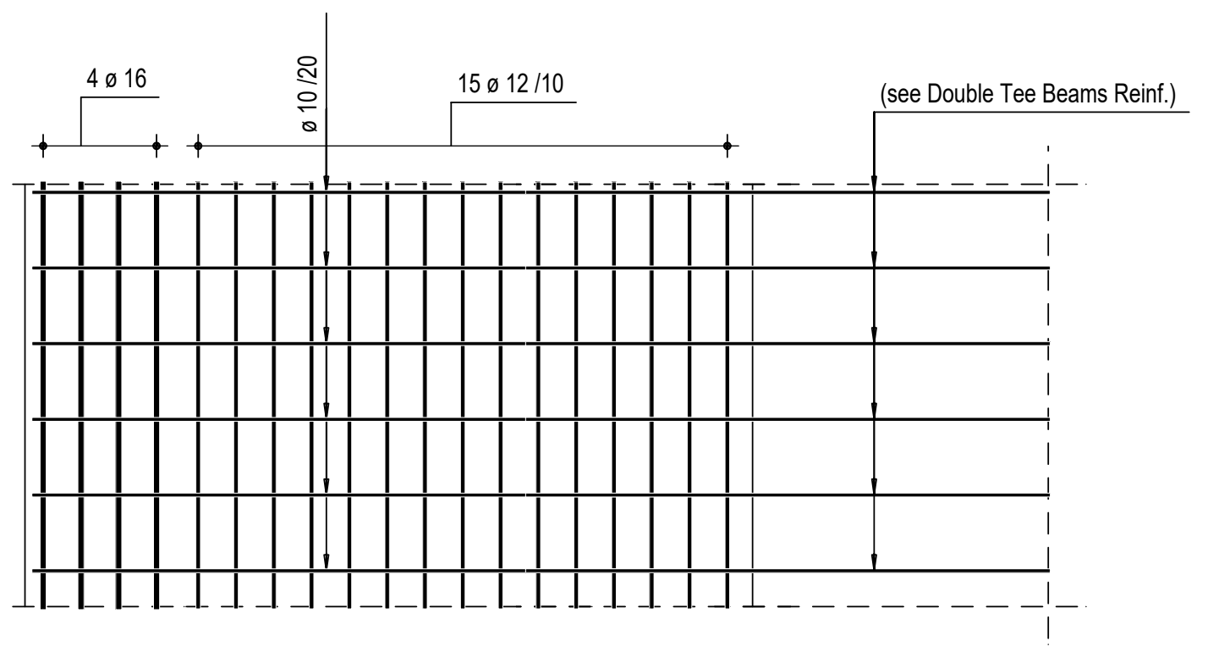

5 ø 16
ø 10 /20
7 ø 12
(see Double Tee Beams Reinf.)

TOP VIEW
VISTA DA SOPRA
1:20

DETAIL / *DETTAGLIO* -E-

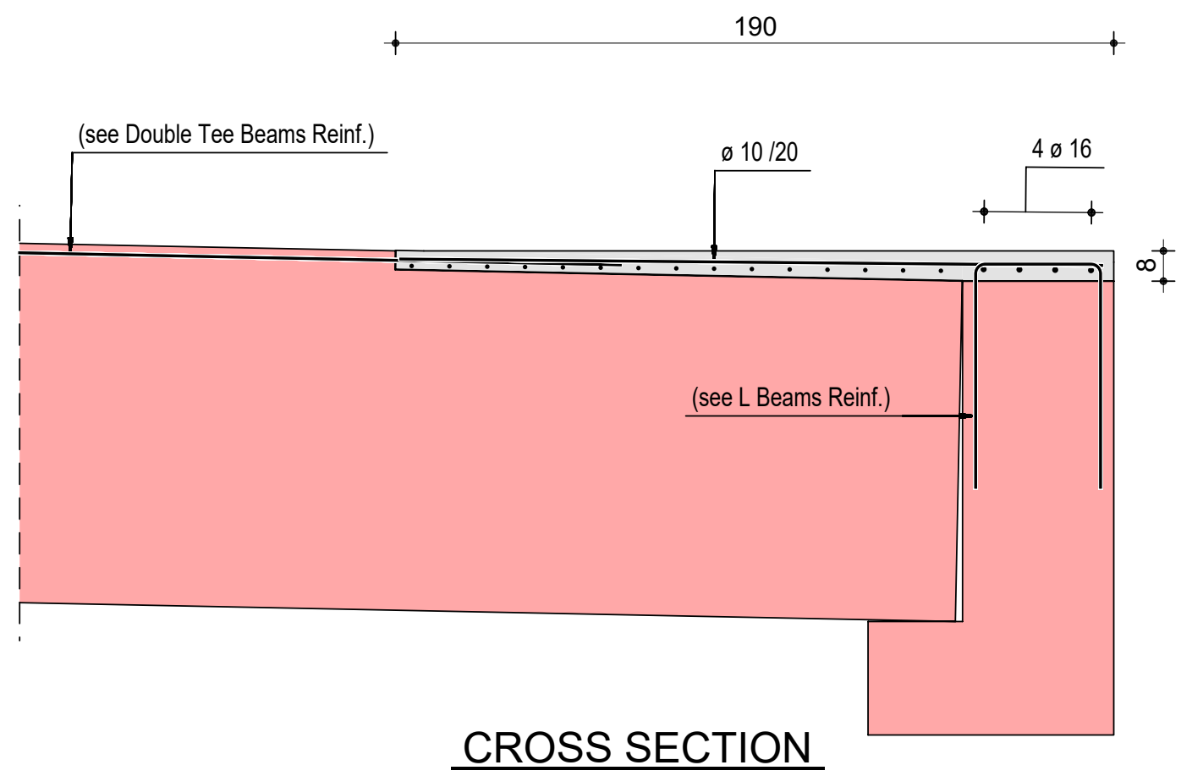

192.5
4 ø 16
ø 10 /20
(see Double Tee Beams Reinf.)
8
(see L Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20

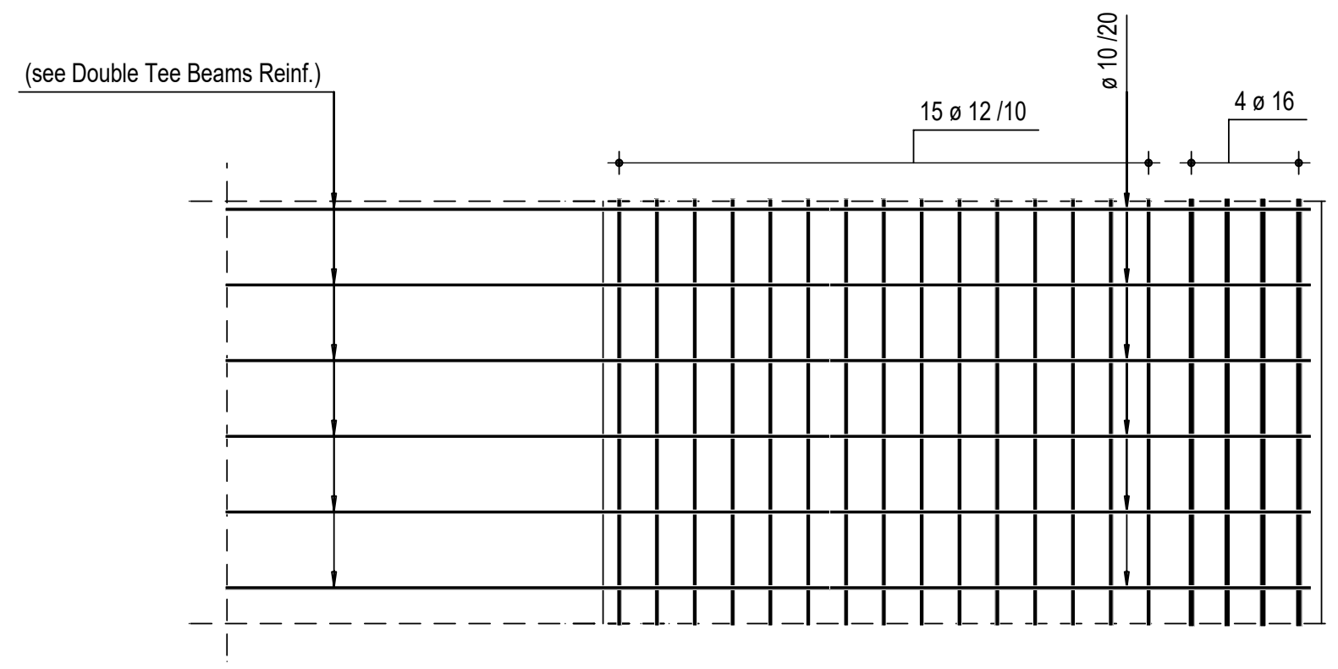

4 ø 16
ø 10 /20
15 ø 12 /10
(see Double Tee Beams Reinf.)

TOP VIEW
VISTA DA SOPRA
1:20

DETAIL / *DETTAGLIO* -F-

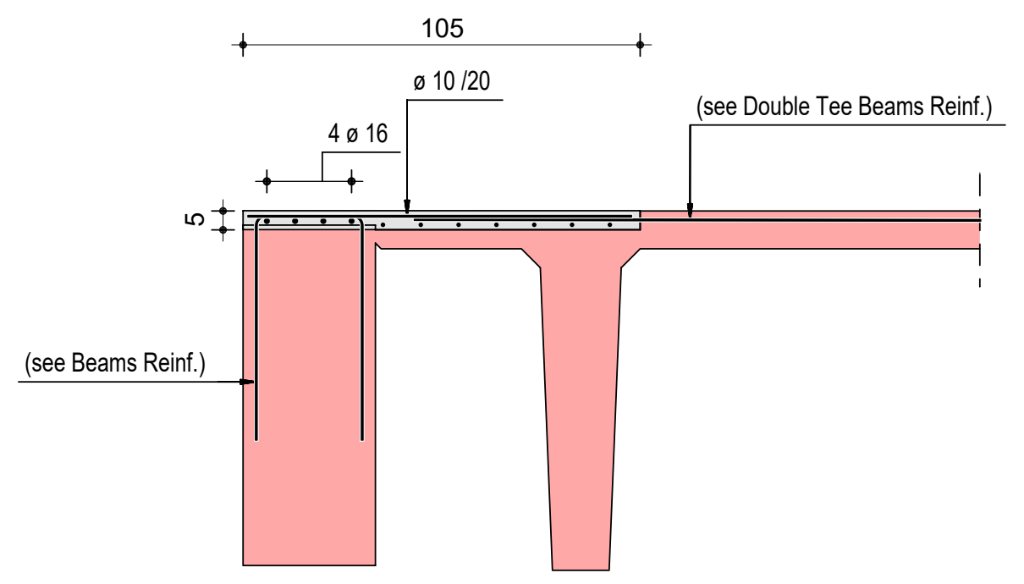

190
(see Double Tee Beams Reinf.)
ø 10 /20
4 ø 16
8
(see L Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20

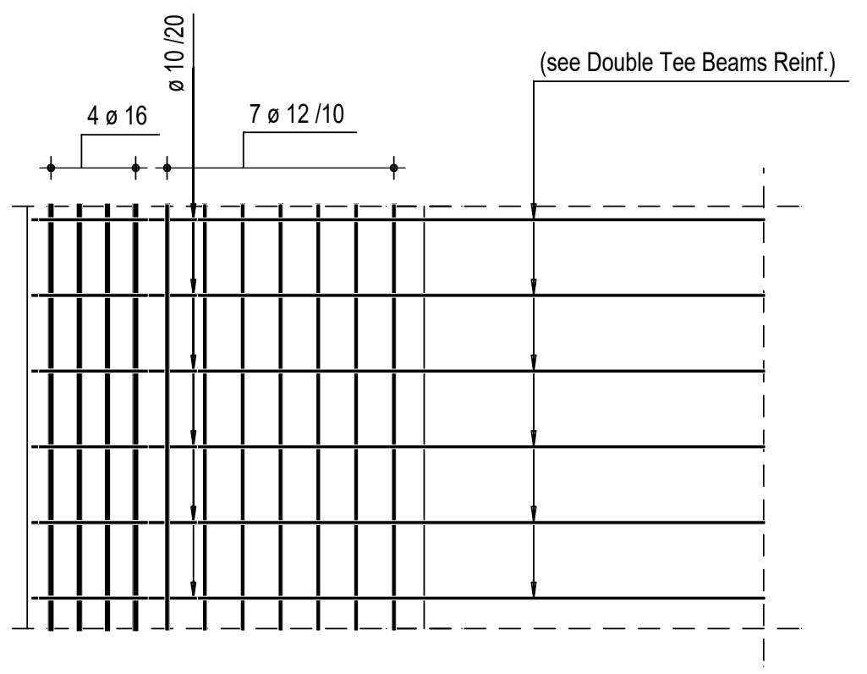

(see Double Tee Beams Reinf.)
15 ø 12 /10
ø 10 /20
4 ø 16

TOP VIEW
VISTA DA SOPRA
1:20

DETAIL / *DETTAGLIO* -G-


105
ø 10 /20
4 ø 16
(see Double Tee Beams Reinf.)
5
(see Beams Reinf.)

CROSS SECTION
SEZIONE TRASVERSALE
1:20


ø 10 /20
4 ø 16
7 ø 12 /10
(see Double Tee Beams Reinf.)

TOP VIEW
VISTA DA SOPRA
1:20

GENERAL NOTE / NOTA GENERALE

BEFORE CASTING THE CONCRETE APPLY A TWO COMPONENT EPOXY ADHESIVE LIKE EPORIP-MAPEI

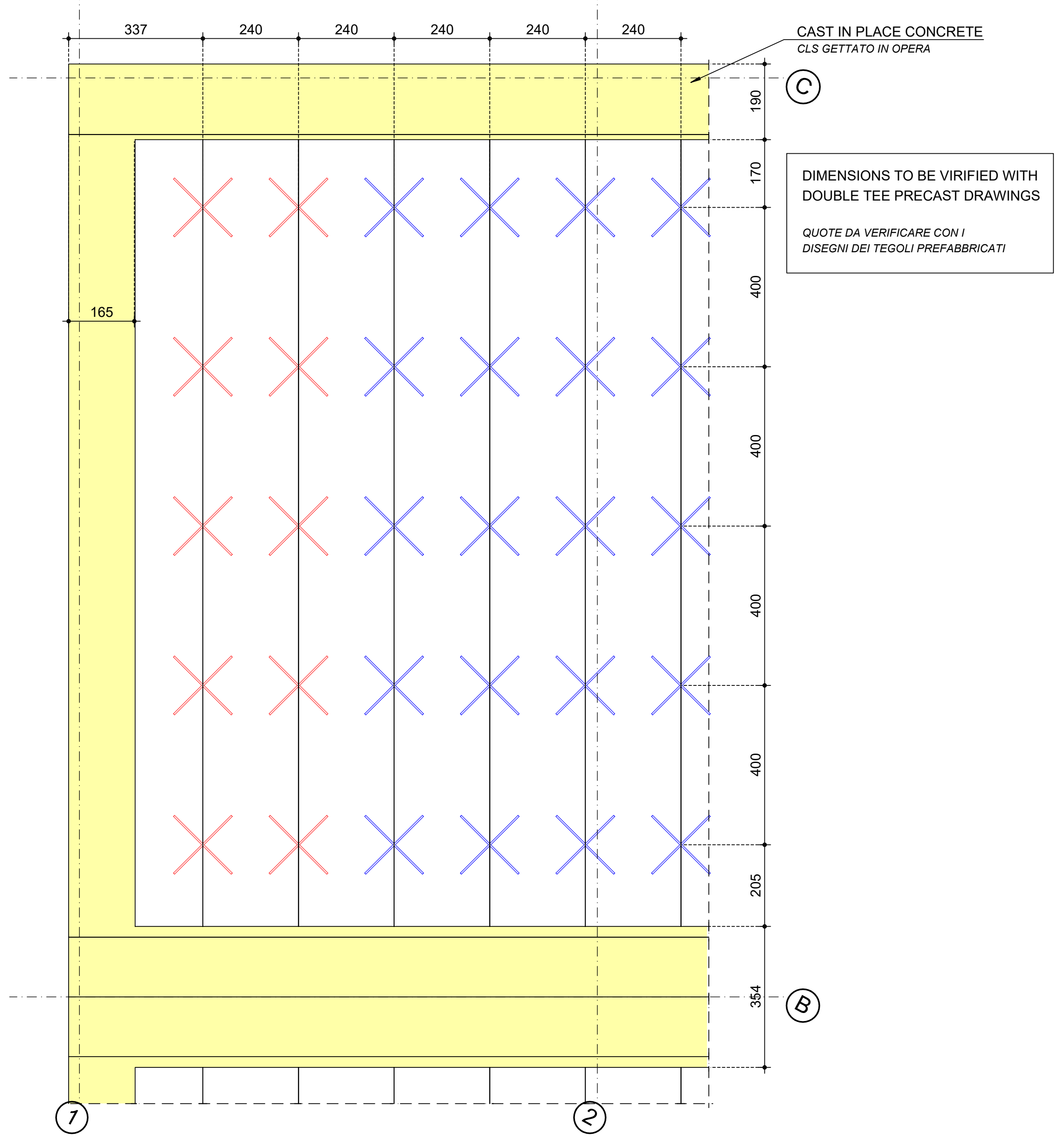
PRIMA DEL GETTO IN CALCESTRUZZO APPLICARE UN COLLANTE BICOMPONENTE TIPO EPORIP-MAPEI

MATERIALS / *MATERIALI*

CONCRETE CLASS *CLASSE CALCESTRUZZO*			**C30/37**
AT UNSHORING AL DISARMO	*Rck* ≥	2,5	*kN/cm²*
AT 28 DAYS A 28 GIORNI	*Rck* ≥	3,7	*kN/cm²*
REBARS CLASS *TIPO ACCIAIO*			**B 450 C**

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

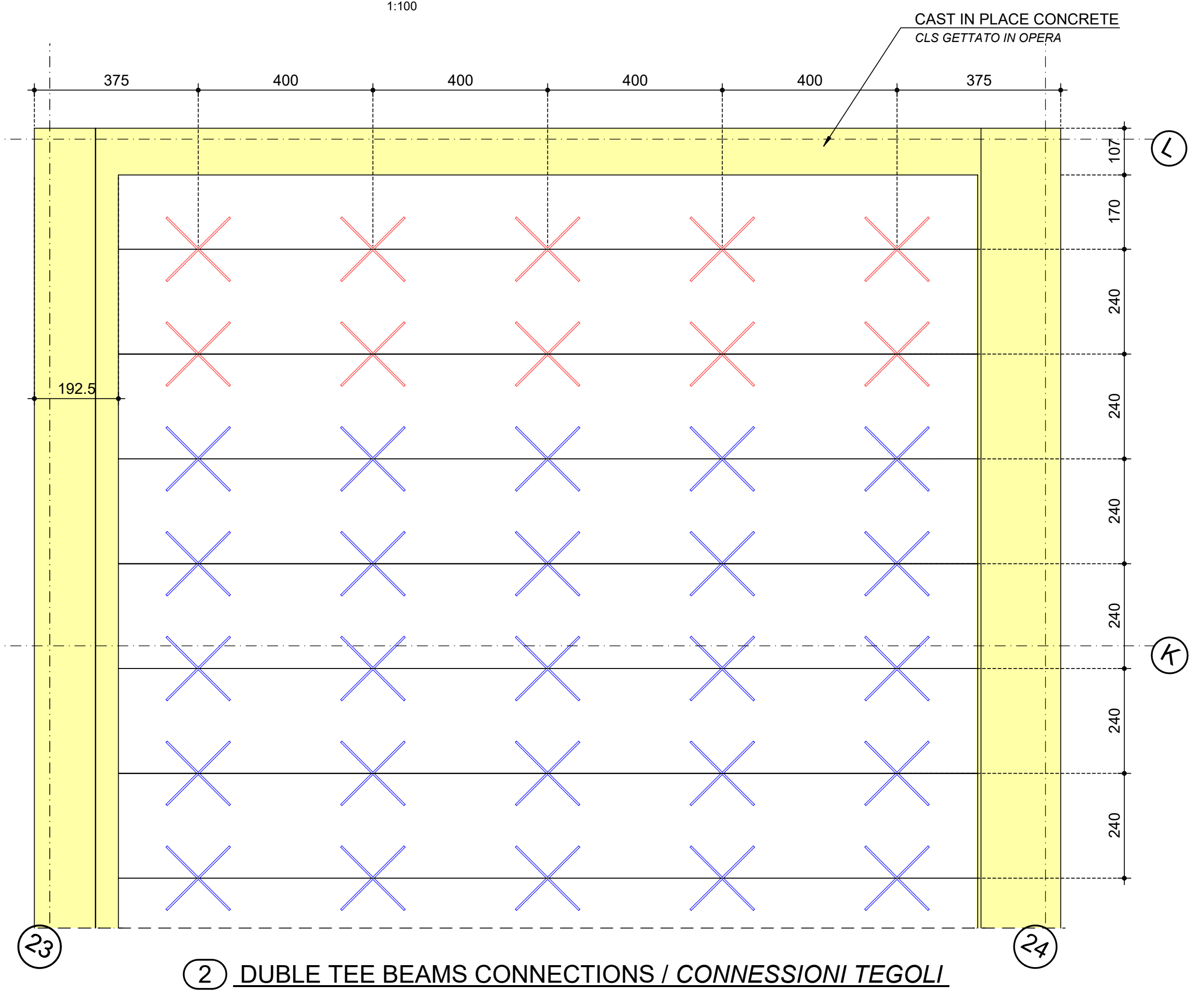
EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 3
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S5
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	10 mm


337
240
240
240
240
240
CAST IN PLACE CONCRETE
CLS GETTATO IN OPERA
190
170
400
400
400
400
205
384
165
C
B
1
2

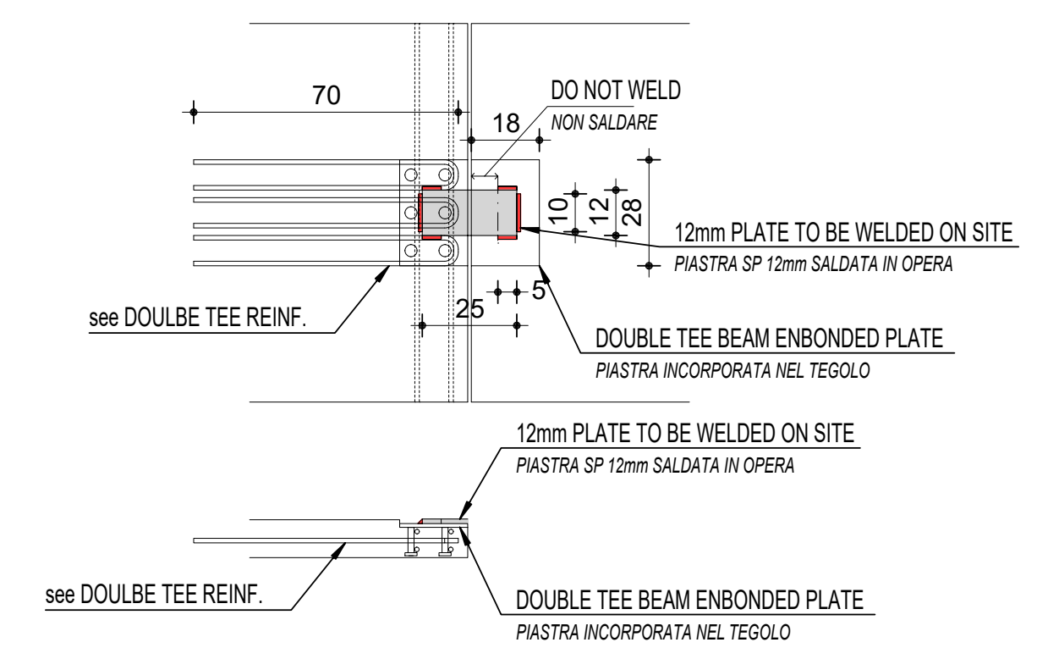
DIMENSIONS TO BE VIRIFIED WITH DOUBLE TEE PRECAST DRAWINGS

QUOTE DA VERIFICARE CON I DISEGNI DEI TEGOLI PREFABBRICATI

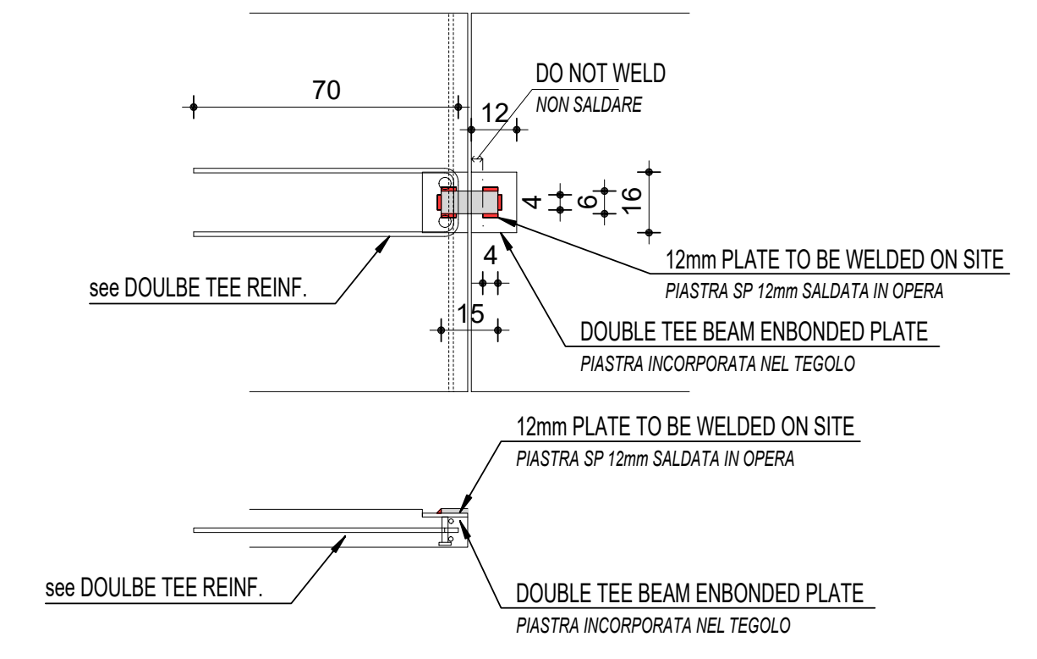
① DUBLE TEE BEAMS CONNECTIONS / *CONNESSIONI TEGOLI*
1:100


375
400
400
400
400
375
CAST IN PLACE CONCRETE
CLS GETTATO IN OPERA
107
170
240
240
240
240
240
240
240
192.5
L
K
23
24

② DUBLE TEE BEAMS CONNECTIONS / *CONNESSIONI TEGOLI*
1:100


70
18
DO NOT WELD
NON SALDARE
10
12
28
12mm PLATE TO BE WELDED ON SITE
PIASTRA SP 12mm SALDATA IN OPERA
see DOULBE TEE REINF.
25
5
DOUBLE TEE BEAM ENBONDED PLATE
PIASTRA INCORPORATA NEL TEGOLO
12mm PLATE TO BE WELDED ON SITE
PIASTRA SP 12mm SALDATA IN OPERA
see DOULBE TEE REINF.
DOUBLE TEE BEAM ENBONDED PLATE
PIASTRA INCORPORATA NEL TEGOLO

CONNECTIONS TYPE / *CONNESSIONI TIPO -A-*
1:20


70
12
DO NOT WELD
NON SALDARE
4
6
16
12mm PLATE TO BE WELDED ON SITE
PIASTRA SP 12mm SALDATA IN OPERA
see DOULBE TEE REINF.
4
15
DOUBLE TEE BEAM ENBONDED PLATE
PIASTRA INCORPORATA NEL TEGOLO
12mm PLATE TO BE WELDED ON SITE
PIASTRA SP 12mm SALDATA IN OPERA
see DOULBE TEE REINF.
DOUBLE TEE BEAM ENBONDED PLATE
PIASTRA INCORPORATA NEL TEGOLO

CONNECTIONS TYPE / *CONNESSIONI TIPO -B-*
1:20

General Notes

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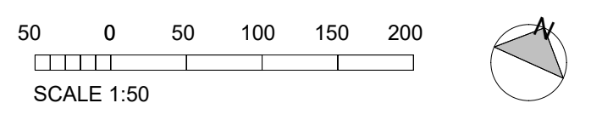
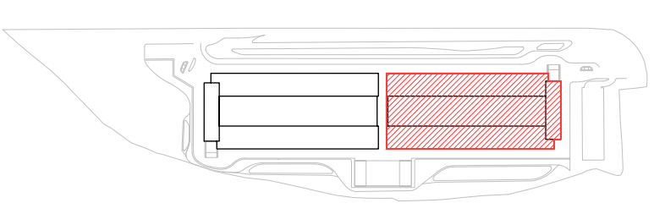
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.


50
0
50
100
150
200
SCALE 1:50
N

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	DAP/FIBH/MEG	03/02/2023
P01	Issued for Compass Review	DAP/FIBH/MEG	16/12/2022

Client

COMPASS™
datacenters

Architectural / Civil

MAESTRALE

STARCHING

ARIATTA
INGEGNERIA DEI SISTEMI SPA

Redesco
Structural
Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Roof Level
Rigid diaphragm - reinforcement and details
concrete structural fillings and double tee beams

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

Status Code
S5

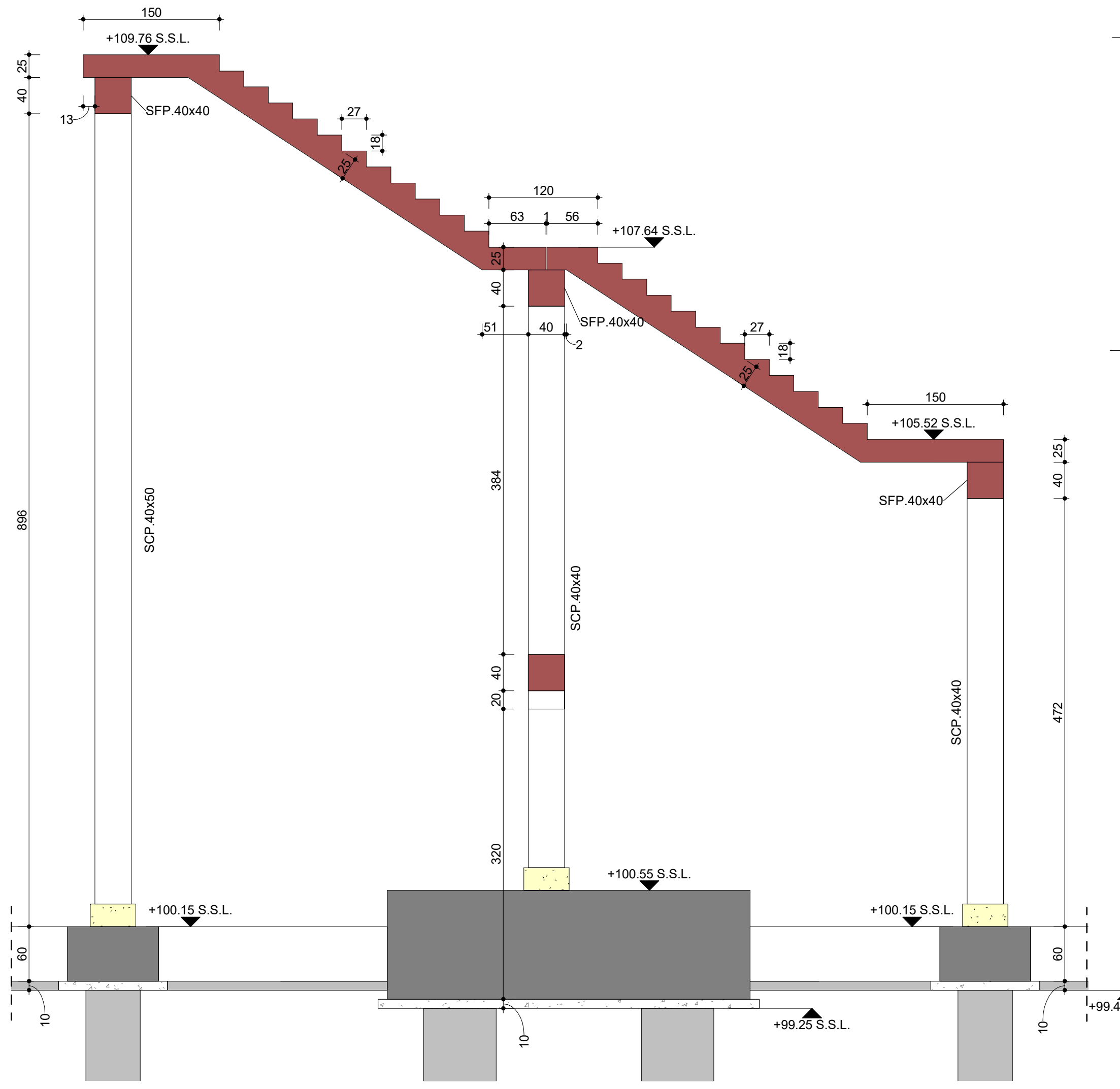
Project Number
P10424

Scale @ A0
1:20

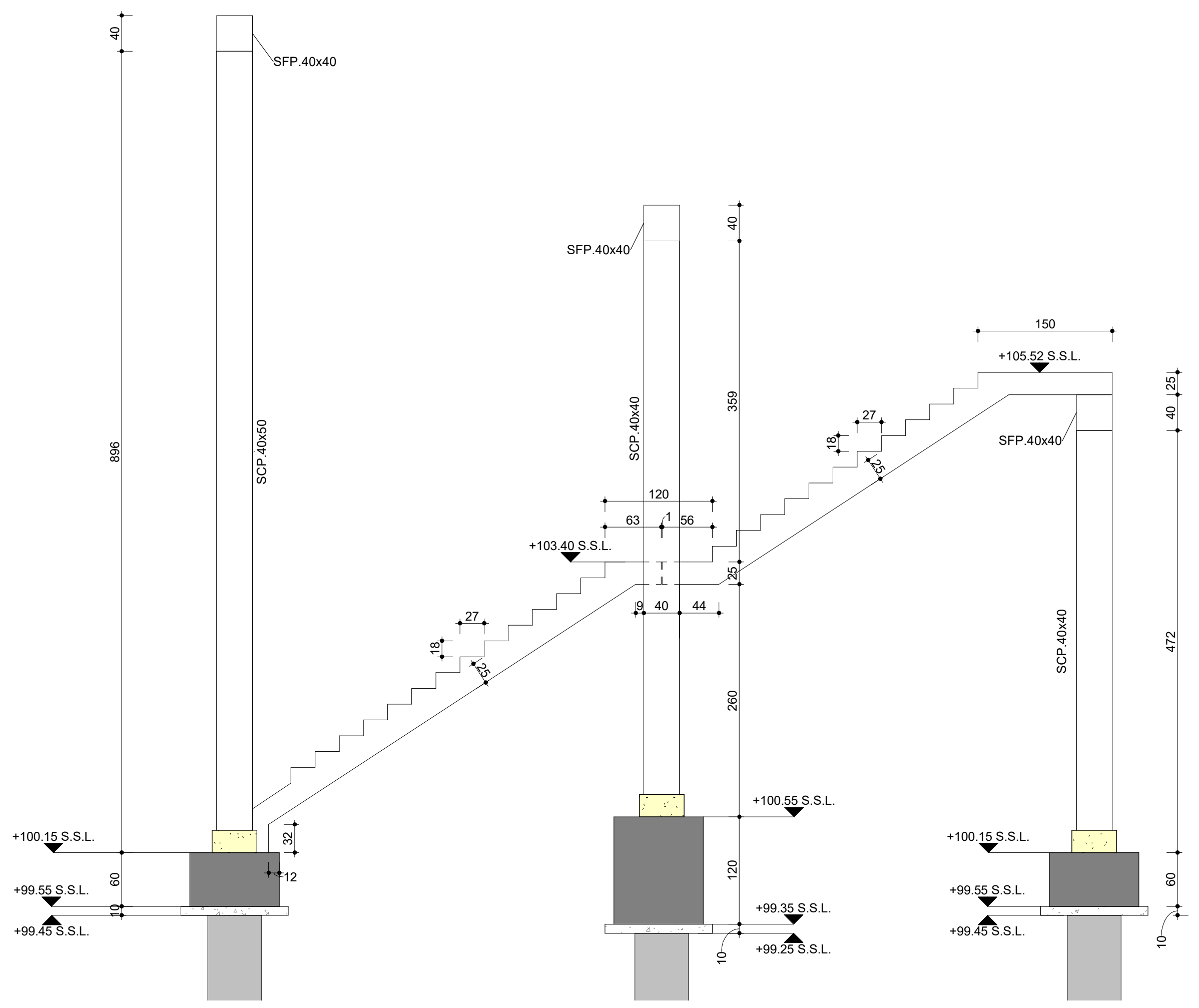
Revision
P02

Drawing Number
SF508

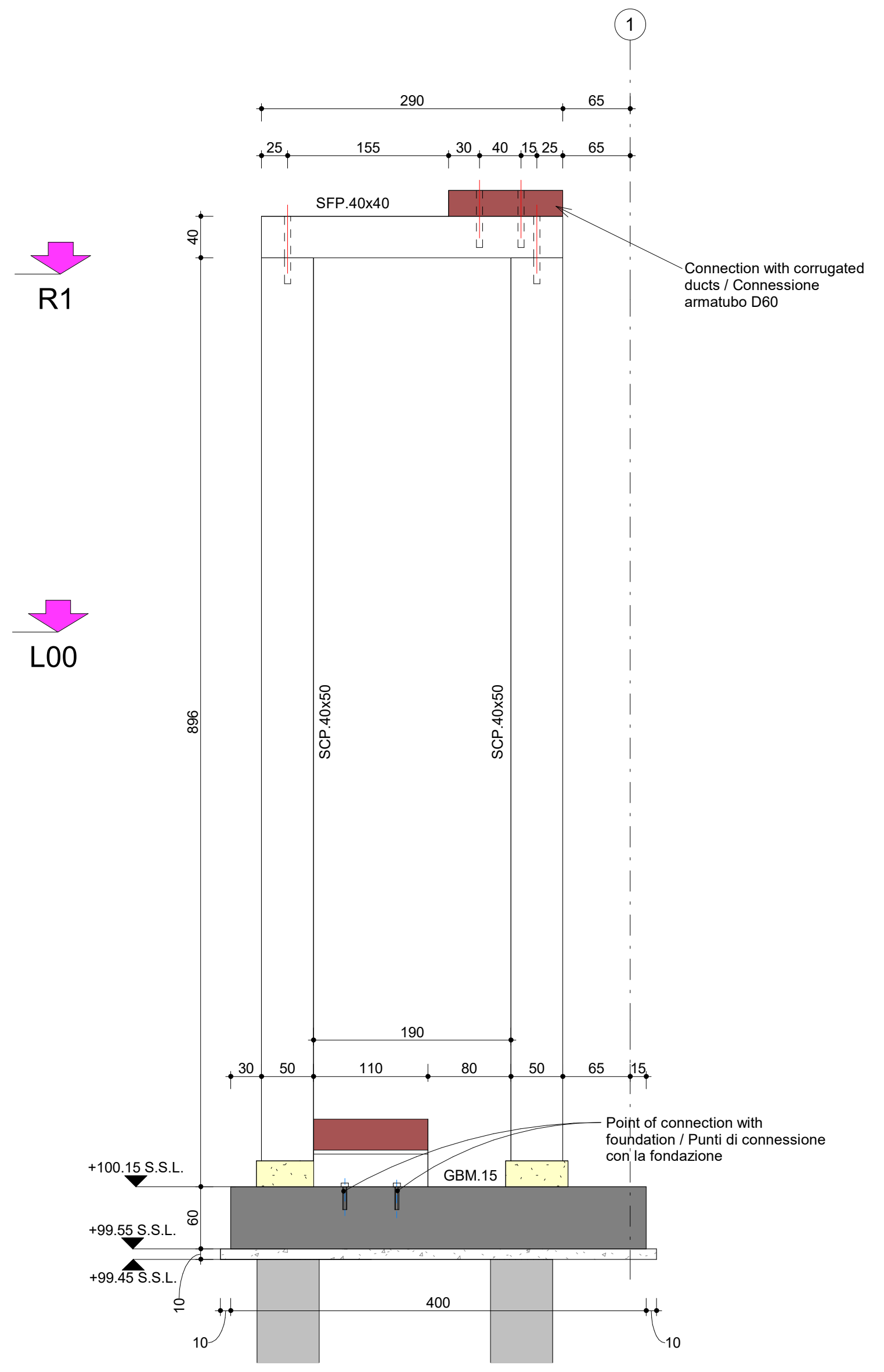
A0 - Do not scale


SFP.40x40
SCP.40x50
SCP.40x40
+109.78 S.S.L.
+107.64 S.S.L.
+105.52 S.S.L.
+100.55 S.S.L.
+100.15 S.S.L.
+99.45 S.S.L.
+99.25 S.S.L.
R1
L00

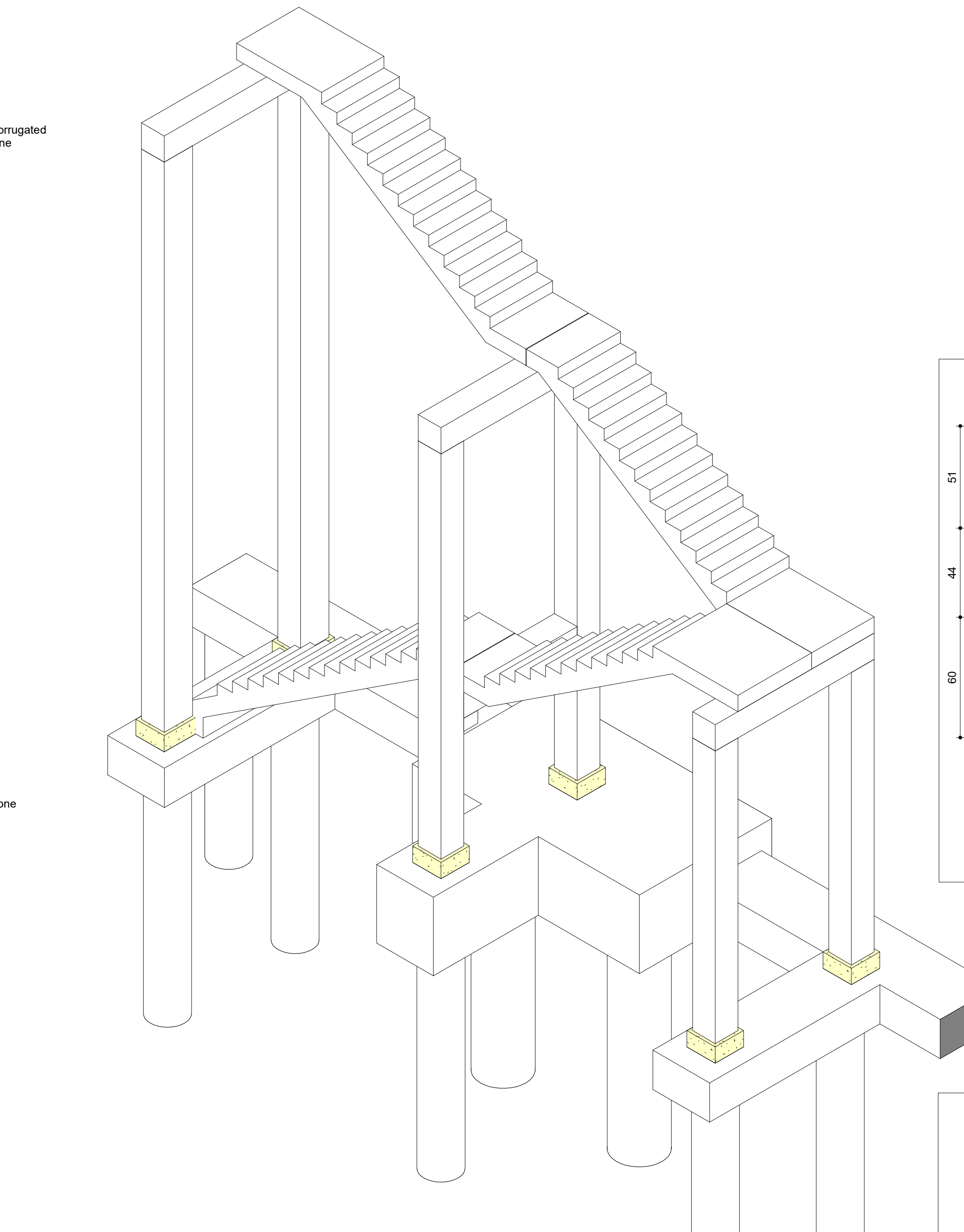
Sect. / Sez. - STDH2 -
1 : 50


SFP.40x40
SCP.40x50
SCP.40x40
+105.52 S.S.L.
+103.40 S.S.L.
+100.55 S.S.L.
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.
+99.35 S.S.L.
+99.25 S.S.L.
R1
L00

Sect. / Sez. - STDH1 -
1 : 50


SFP.40x40
SCP.40x50
Connection with corrugated ducts / Connessione armatubo D60
Point of connection with foundation / Punti di connessione con la fondazione
GBM.15
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.

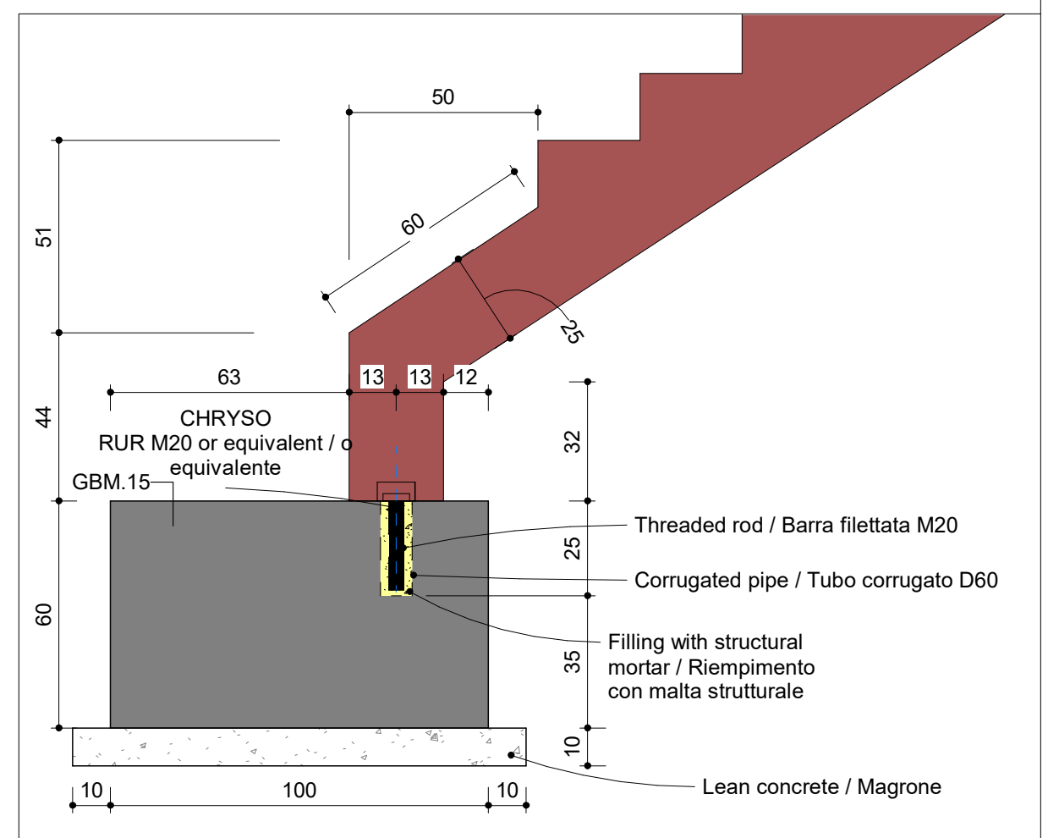
Sect. / Sez. - STDH3 -
1 : 50



3D view - West staircase / Scala ovest

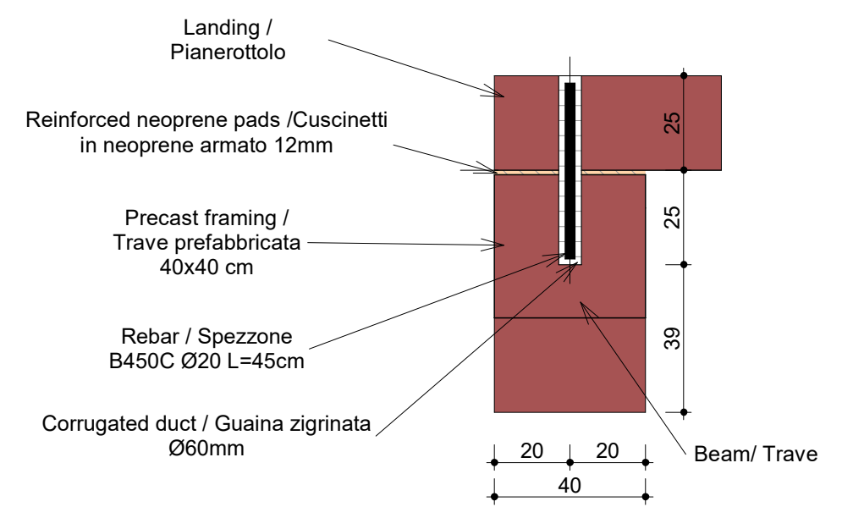
Ga Plans Legend / Legenda Carpenteria

▩	Cast in place concrete section element / Sezione elementi gettati in opera
▨	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
▨	Lean concrete section element / Sezione elementi magrone
🟨	Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
🟧	Reinforced neoprene pads / Cuscinetti in neoprene armato
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri


50
60
25
51
44
60
63
13
13
12
32
25
35
10
100
CHRYSO
RUR M20 or equivalent / o equivalente
GBM.15
Threaded rod / Barra filettata M20
Corrugated pipe / Tubo corrugato D60
Filling with structural mortar / Riempimento con malta strutturale
Lean concrete / Magrone

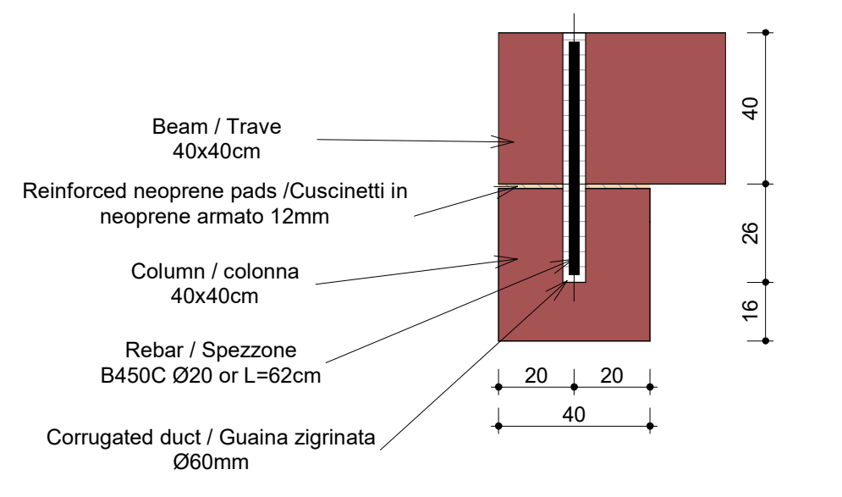
Sect. / Sez. - STDH6 -
1 : 20

Typical beam - Landing connection
Dettaglio tipico trave - pianerottolo

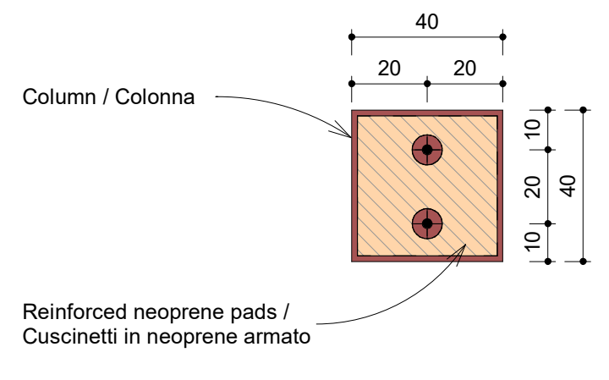

Landing / Pianerottolo
Reinforced neoprene pads /Cuscinetti in neoprene armato 12mm
Precast framing / Trave prefabbricata 40x40 cm
Rebar / Spezzone B450C Ø20 L=45cm
Corrugated duct / Guaina zigrinata Ø60mm
Beam/ Trave
25
25
39
20
20
40

Sec./ Sez.
1:20

Typical detail beam to column
Dettaglio tipico trave su colonna

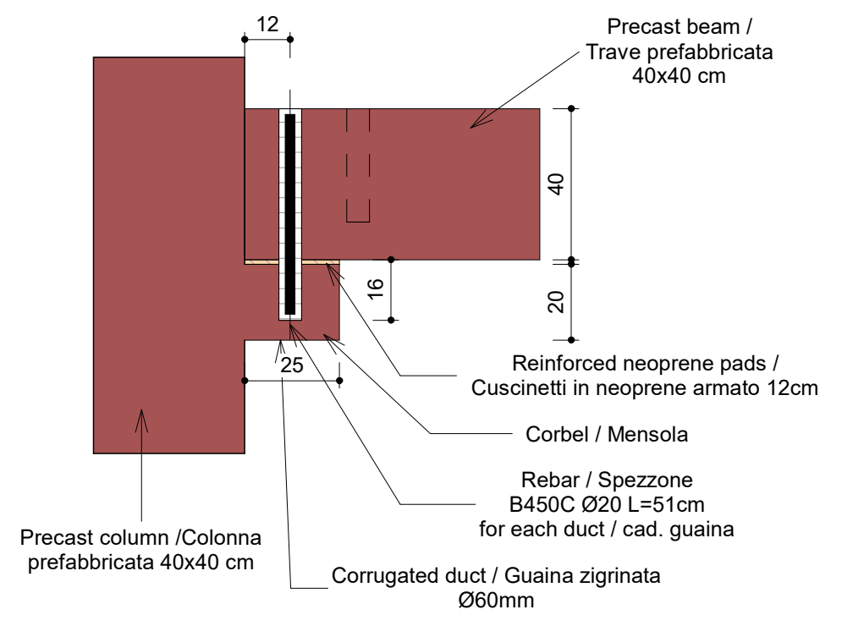

Beam / Trave 40x40cm
Reinforced neoprene pads /Cuscinetti in neoprene armato 12mm
Column / colonna 40x40cm
Rebar / Spezzone B450C Ø20 or L=62cm
Corrugated duct / Guaina zigrinata Ø60mm
40
26
16
20
20
40

Sec. / Sez.
1:20

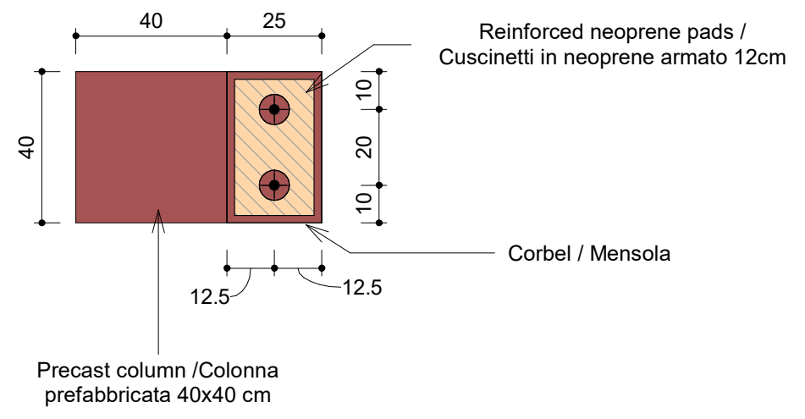

Column / Colonna
Reinforced neoprene pads / Cuscinetti in neoprene armato
40
20
20
10
20
10
40

Top view / Vista dall'alto
1:20

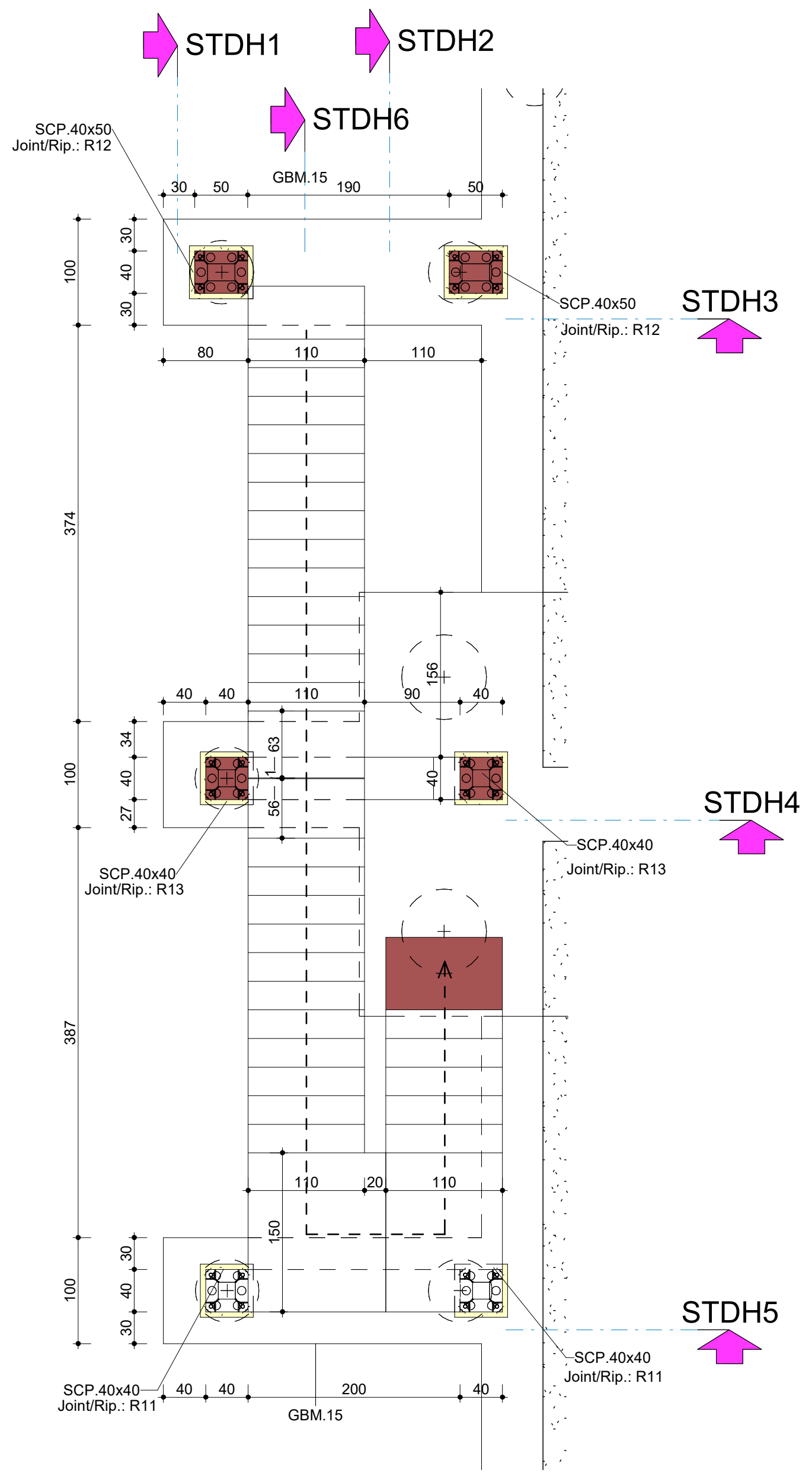
Typical detail beam to corbel
Dettaglio tipico trave su mensola


12
Precast beam / Trave prefabbricata 40x40 cm
40
16
20
25
Reinforced neoprene pads / Cuscinetti in neoprene armato 12cm
Corbel / Mensola
Rebar / Spezzone B450C Ø20 L=51cm for each duct / cad. guaina
Corrugated duct / Guaina zigrinata Ø60mm
Precast column /Colonna prefabbricata 40x40 cm

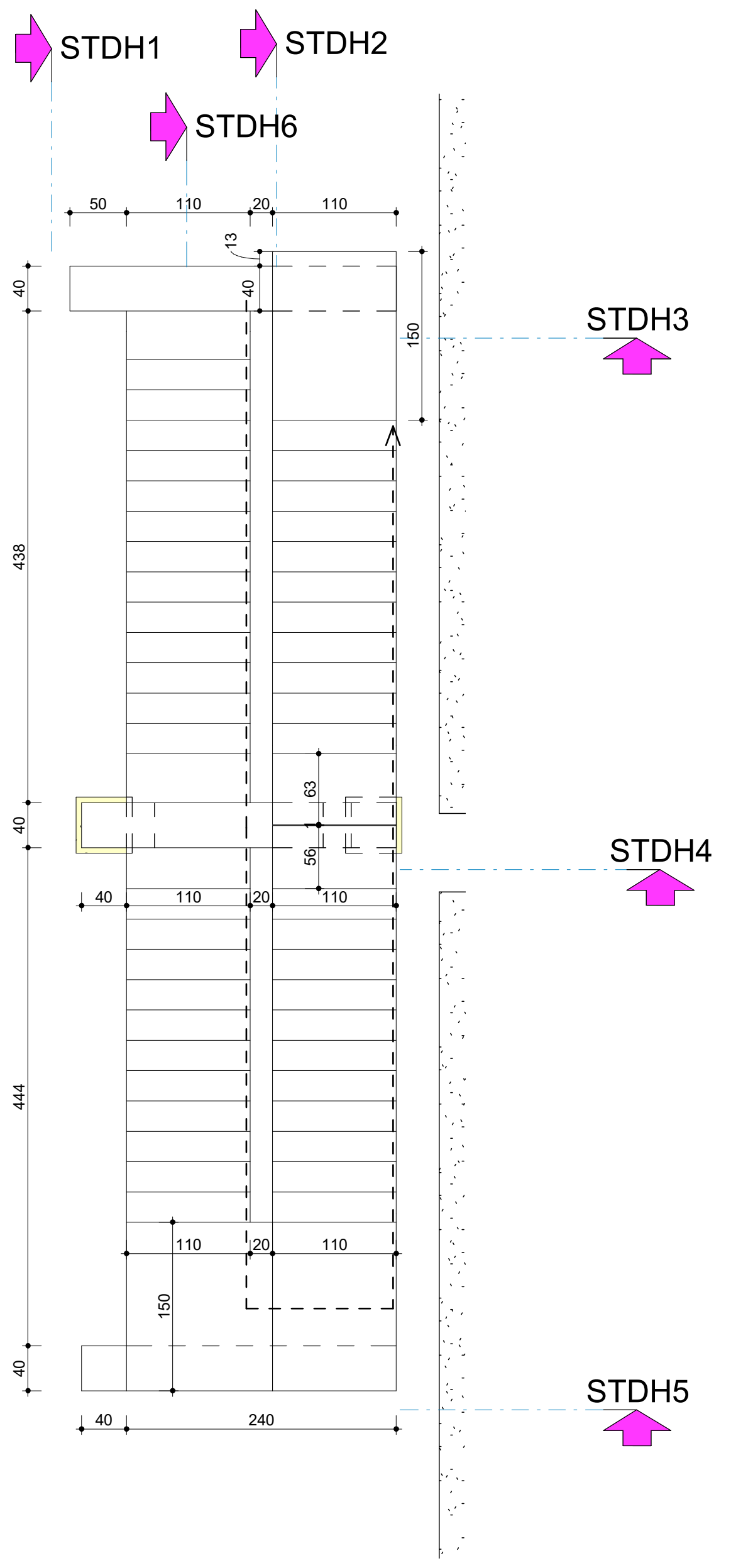
Sec./ Sez.
1:20


40
25
40
10
20
10
12.5
12.5
Reinforced neoprene pads / Cuscinetti in neoprene armato 12cm
Corbel / Mensola
Precast column /Colonna prefabbricata 40x40 cm

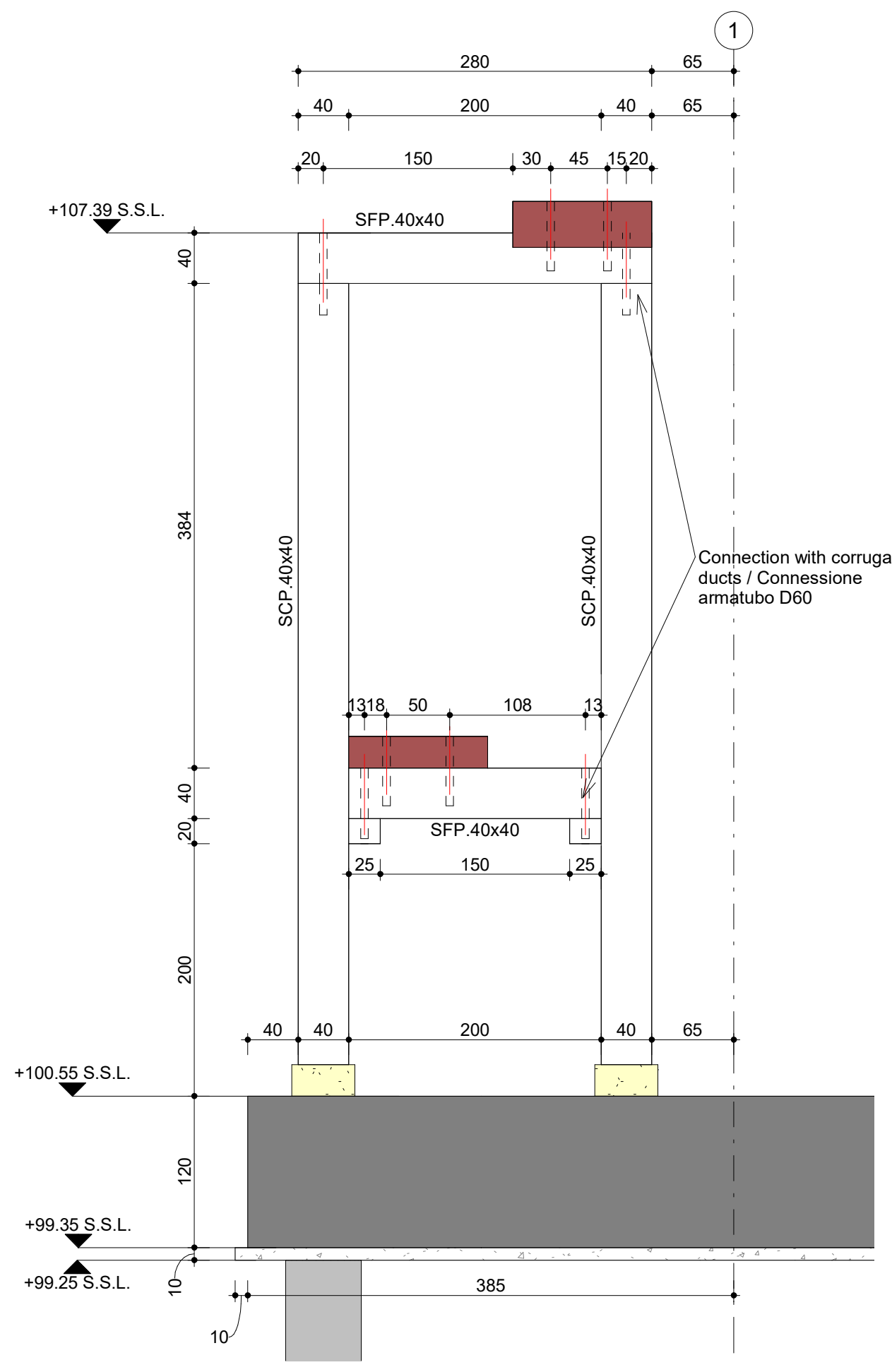
Top view / Vista dall'alto
1:20


STDH1
STDH2
STDH6
STDH3
STDH4
STDH5
SCP.40x50 Joint/Rip.: R12
SCP.40x40 Joint/Rip.: R13
SCP.40x40 Joint/Rip.: R11
GBM.15

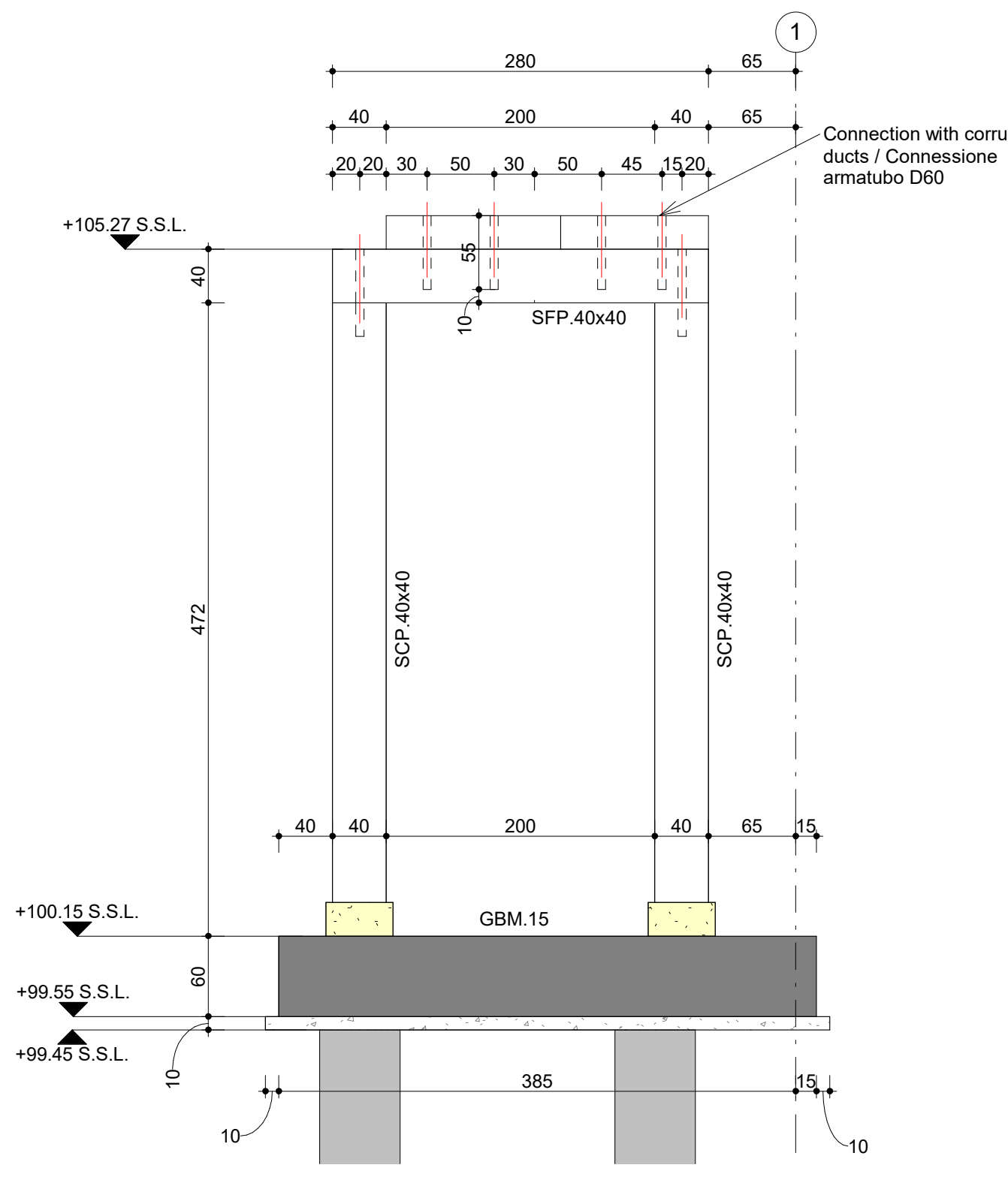
Plan L00 - Top view / Vista dall'alto -
1 : 50


STDH1
STDH2
STDH6
STDH3
STDH4
STDH5

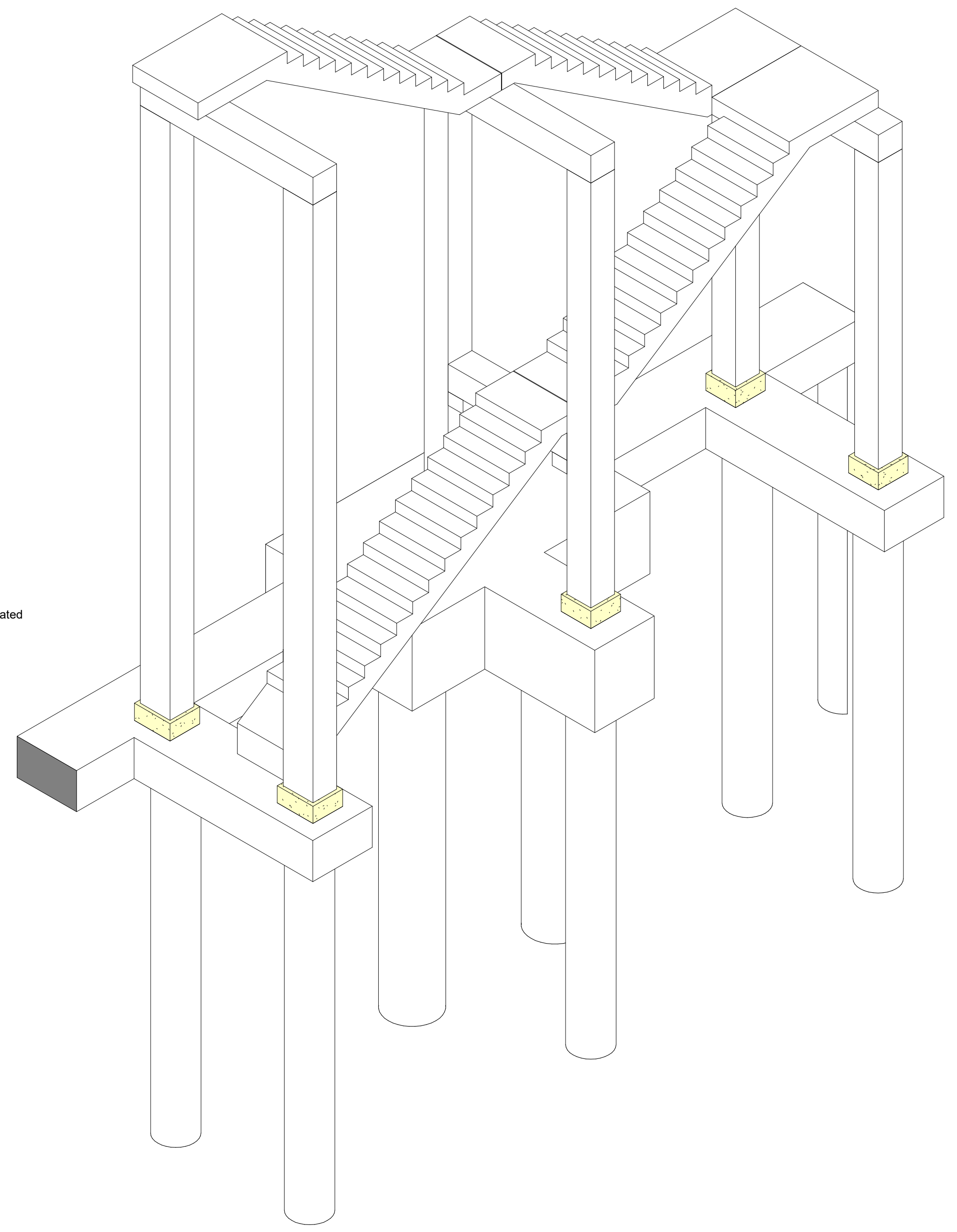
Plan R1 - Top view / Vista dall'alto -
1 : 50


SFP.40x40
SCP.40x40
Connection with corrugated ducts / Connessione armatubo D60
+107.39 S.S.L.
+100.55 S.S.L.
+99.35 S.S.L.
+99.25 S.S.L.

Sect. / Sez. - STDH4 -
1 : 50


SFP.40x40
SCP.40x40
Connection with corrugated ducts / Connessione armatubo D60
GBM.15
+105.27 S.S.L.
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.

Sect. / Sez. - STDH5 -
1 : 50



3D view - West staircase / Scala ovest

COLUMN FOOT JOINTS / RIPRESE DEI PILASTRI

Joint type Ripresa	Count Conteggio	Column size [cm] Dimensioni pilastro	Foundation thickness Spessore fondazione	Peikko shoe type Tipo scarpa Peikko	Peikko bolt type Tipo tirafondo	Tube A Quantity N° armatubo A	Tube A Ø Ø armatubo A	Tube B Quantity N° armatubo B	Tube B Ø Ø armatubo B	Tube length Lungh. armatubo	Feet length Lungh. piedini
R11	6	40x40	60 cm	HPKM24	HPM24L	8	80 mm	0	0 mm	50 cm	10 cm
R12	2	40x50	60 cm	HPKM24	HPM24L	8	80 mm	0	0 mm	80 cm	40 cm
R13	2	40x40	120 cm	HPKM24	HPM24L	8	80 mm	0	0 mm	50 cm	10 cm

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
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3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
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5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

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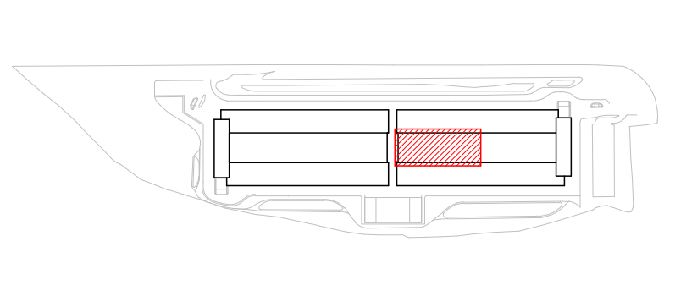
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50
N

Key Plan



NOTE:

1. Precast details may be modified by precast manifacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision / I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

2. For connection details of non-structural items, waterproofing and finishing layers, refer to Architectural drawings / Per i dettagli delle connesioni degli elementi non strutturali, impermeabilizzazione e finiture, fare riferimento ai disegni architettonici AE556 - AE557

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FIBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

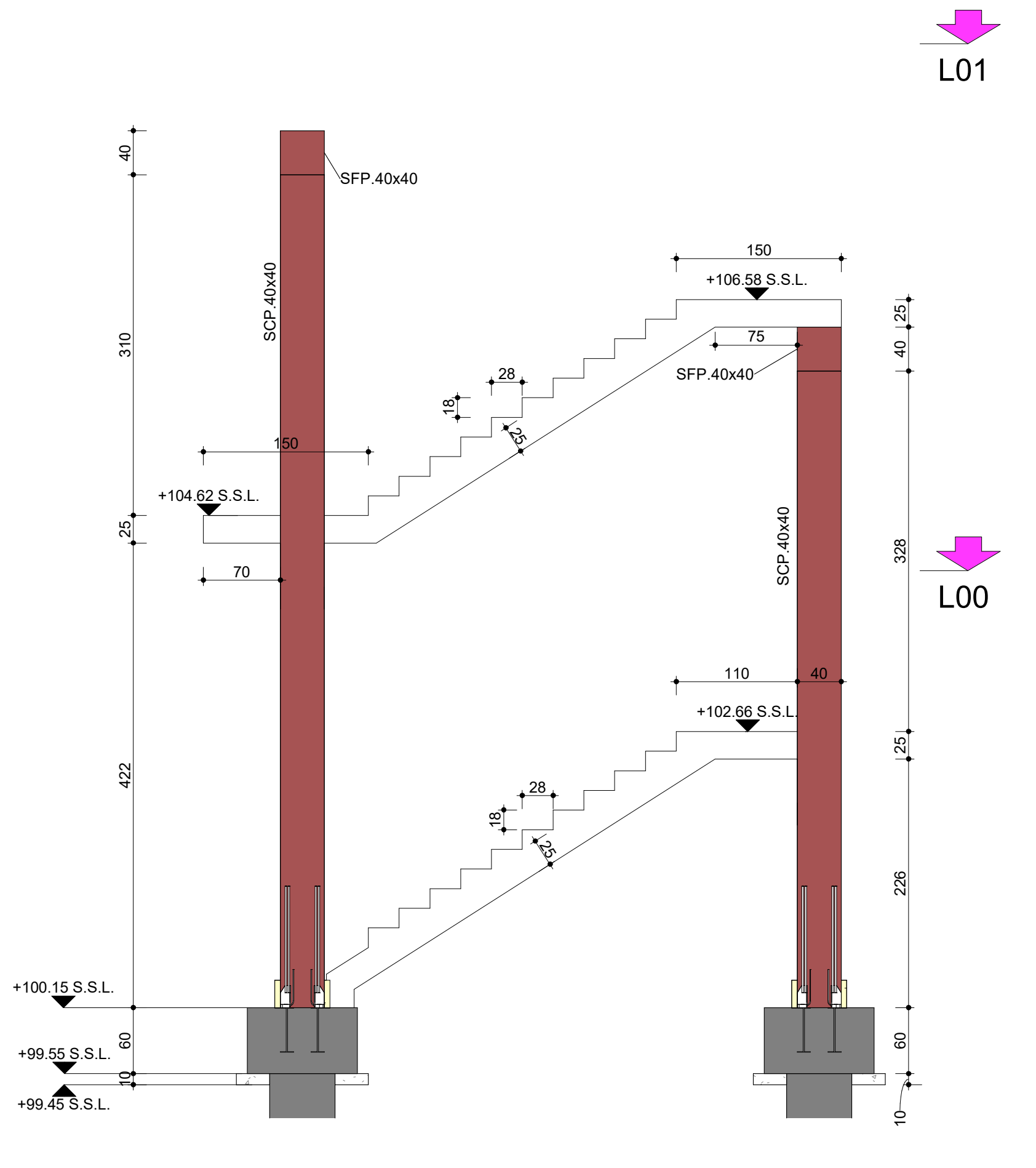
Project Title
MXP I-I

Drawing Title
External Stairs
West Staircase
Plan and Elevations

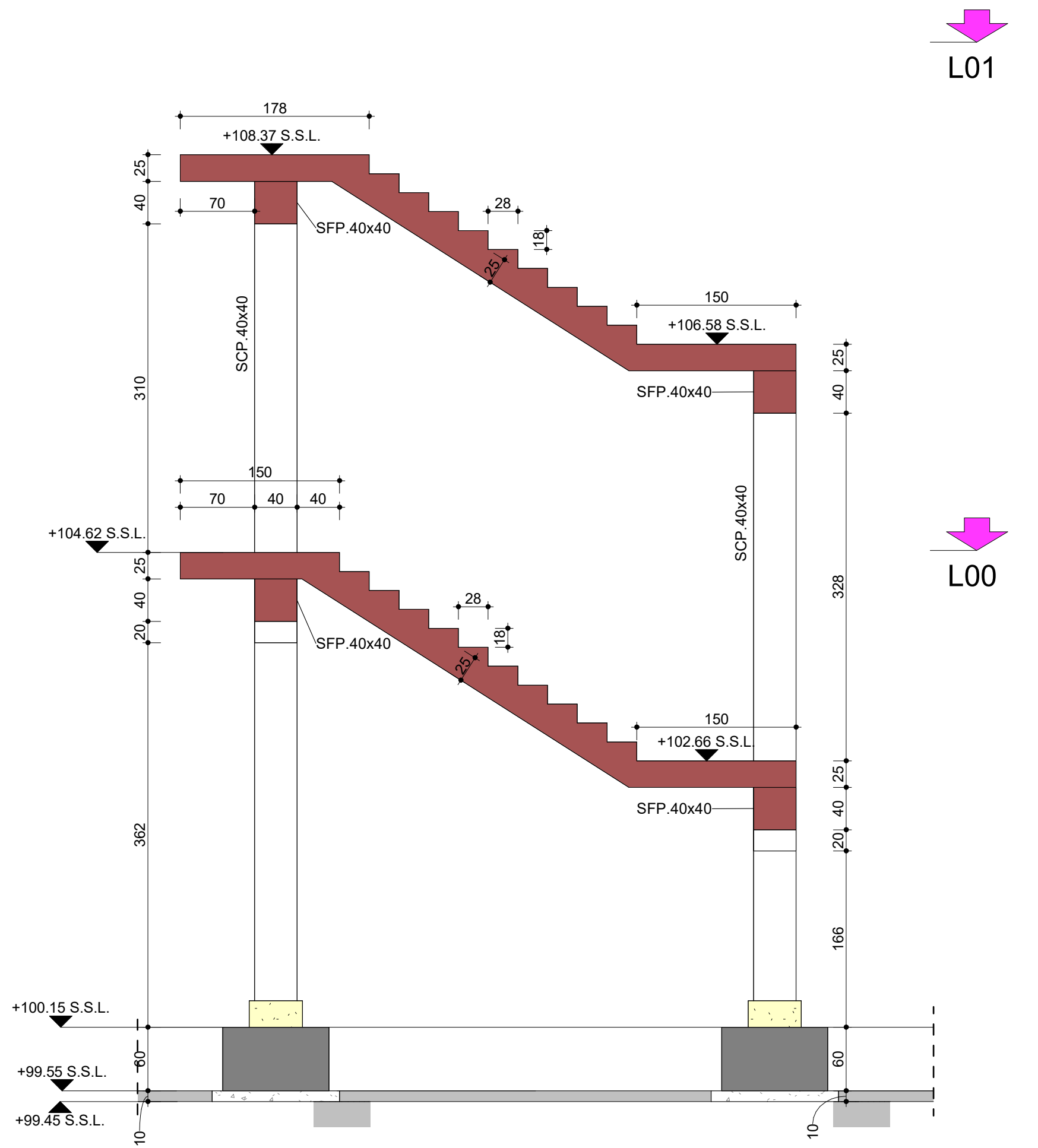
Project Status
ISSUED FOR CONSTRUCTION

Discipline: **Structural**
Status Code: **S5**
Project Number: **P10424**
Scale @ A0: **1:50 / 1:20**
Revision: **P02**
Drawing Number: **SF107**

A0 - Do not scale


L01
L00
SFP.40x40
SCP.40x40
+106.58 S.S.L.
+104.62 S.S.L.
+102.66 S.S.L.
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.
150
75
28
70
110
40
310
422
328
226
60
10

Sect. / Sez. - STSB1 -
1 : 50


L01
L00
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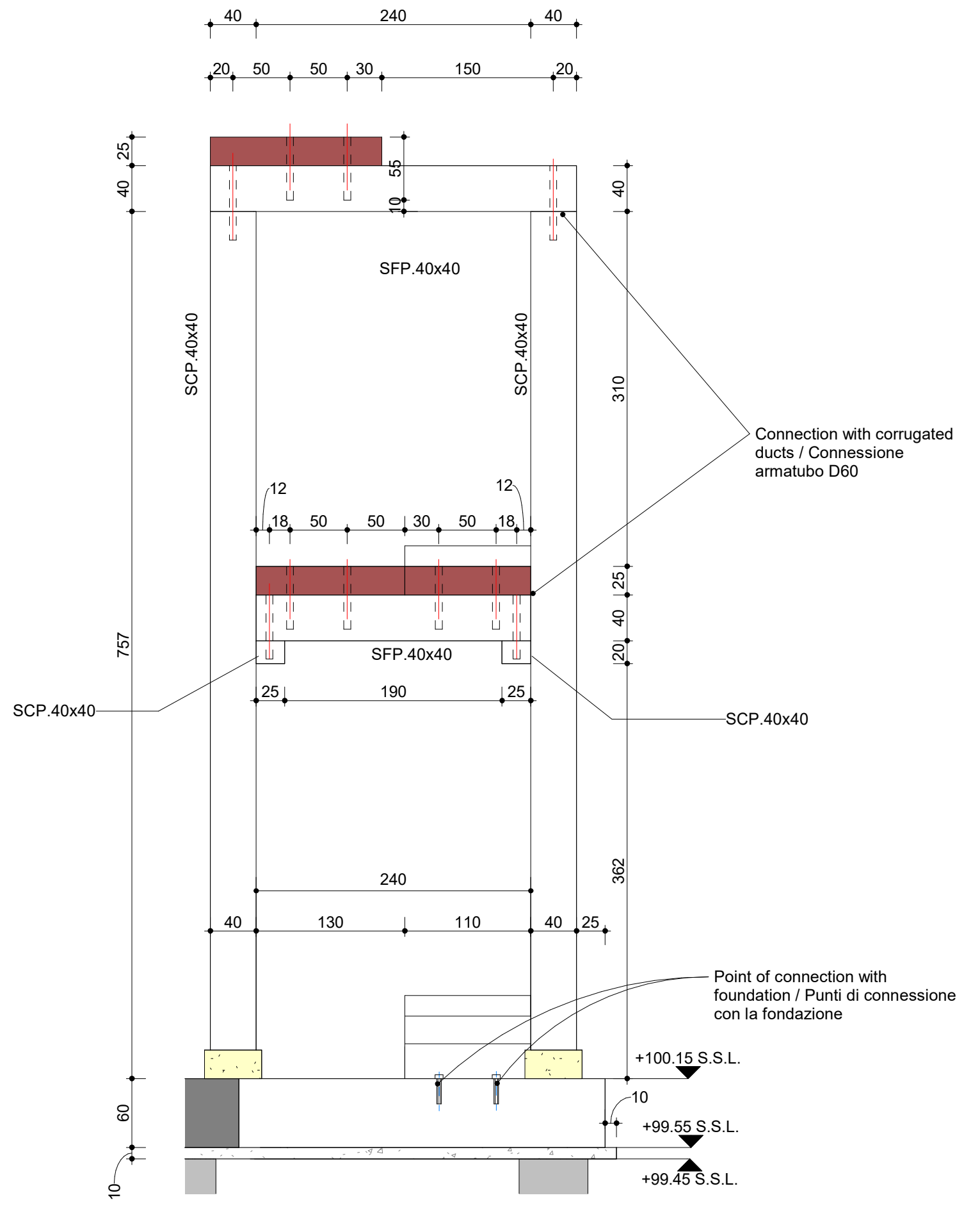
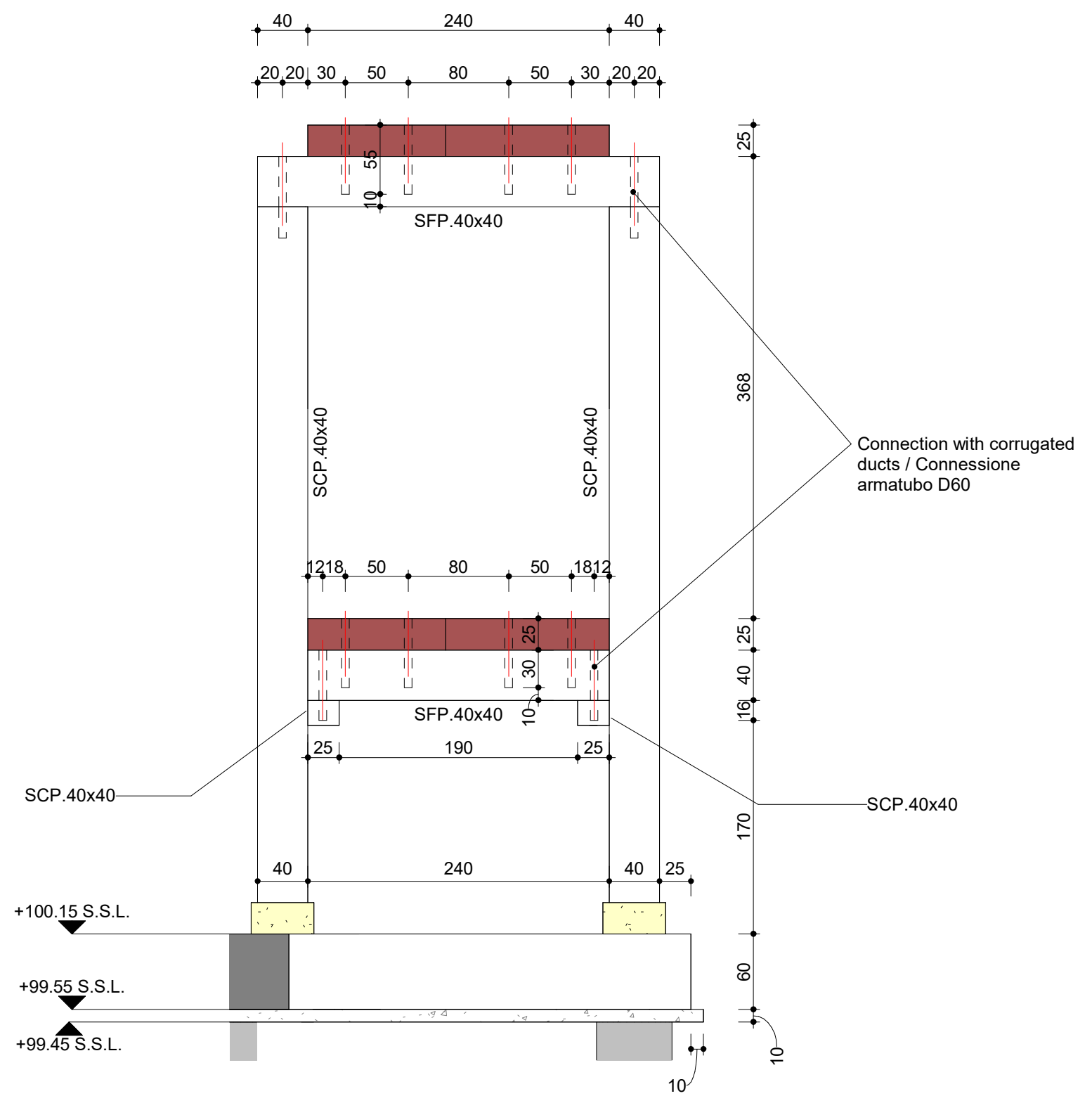
+108.37 S.S.L.
+106.58 S.S.L.
+104.62 S.S.L.
+102.66 S.S.L.
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.
SFP.40x40
SCP.40x40
150
70
40
28
310
362
328
166
60
10

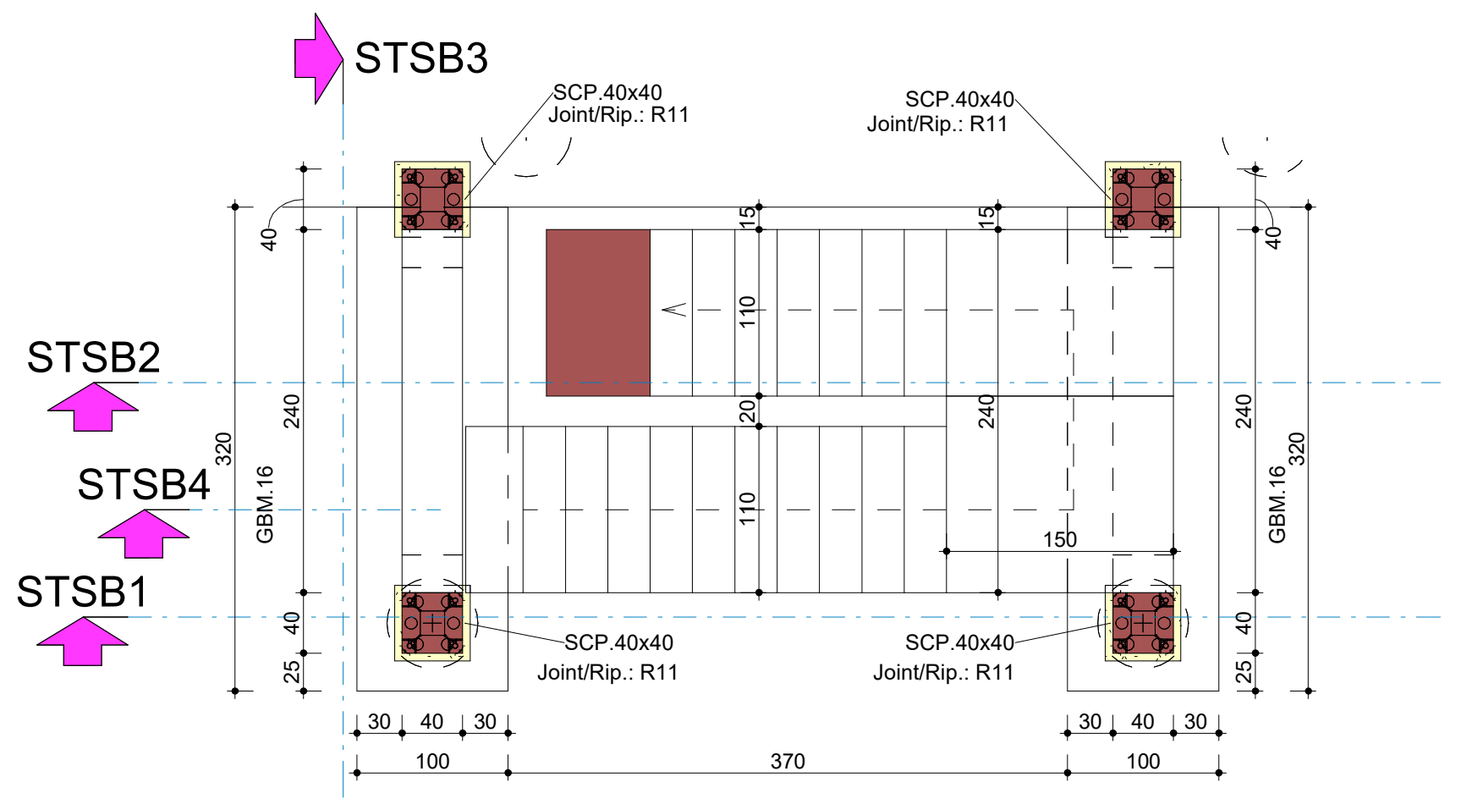
Sect. / Sez. - STSB2 -
1 : 50


40
240
20
50
30
150
SFP.40x40
SCP.40x40
12
18
190
25
130
110
757
310
362
55
60
10
Connection with corrugated ducts / Connessione armatubo D60
Point of connection with foundation / Punti di connessione con la fondazione
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.

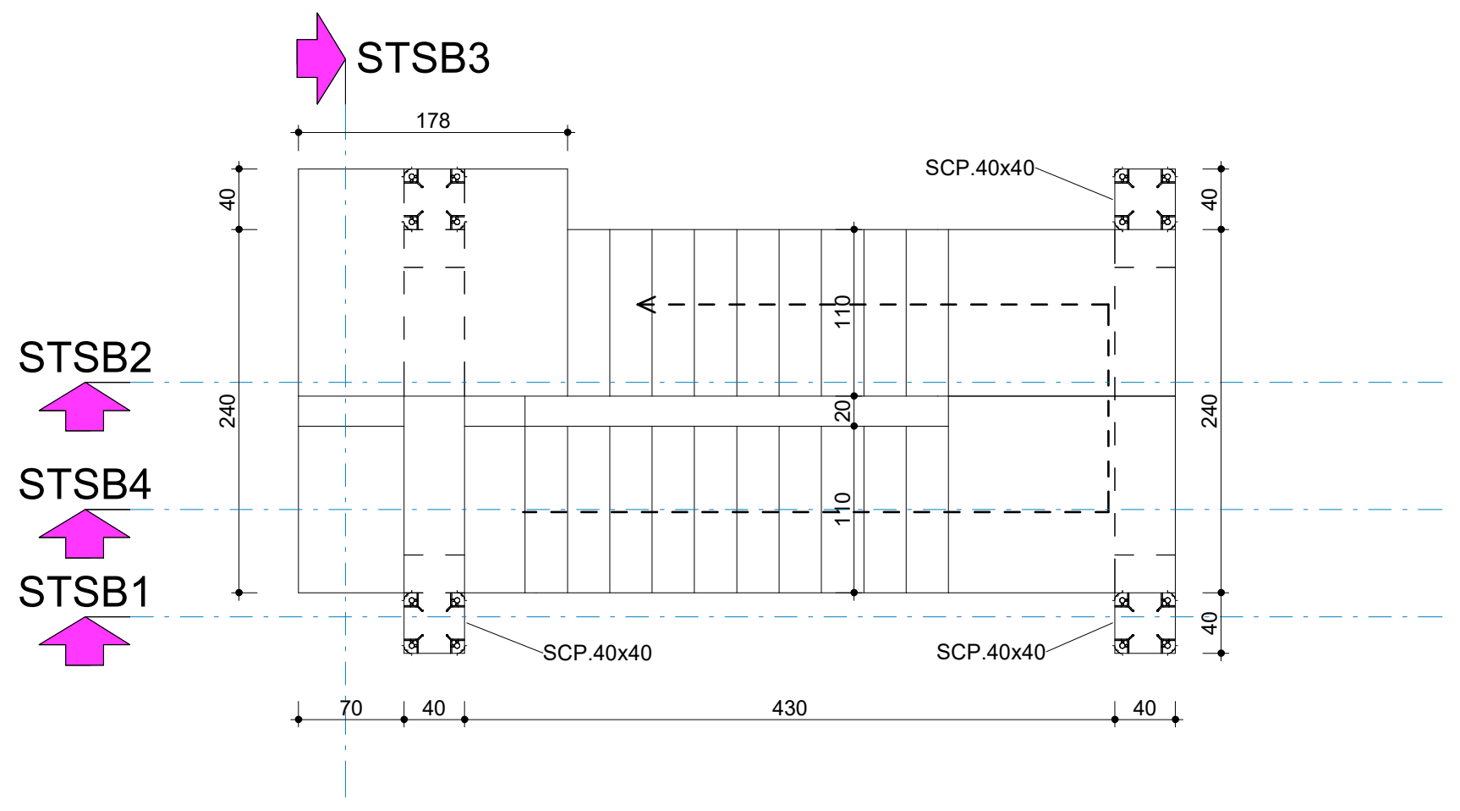
Sect. / Sez. - STSB3 -
1 : 50


40
240
20
30
50
80
SFP.40x40
SCP.40x40
12
18
190
25
368
170
60
10
Connection with corrugated ducts / Connessione armatubo D60
+100.15 S.S.L.
+99.55 S.S.L.
+99.45 S.S.L.

Sect. / Sez. - STSB4 dependent -
1 : 50


STSB3
STSB2
STSB4
STSB1
SCP.40x40
Joint/Rip.: R11
GBM.16
15
110
20
240
320
150
30
40
100
370
25

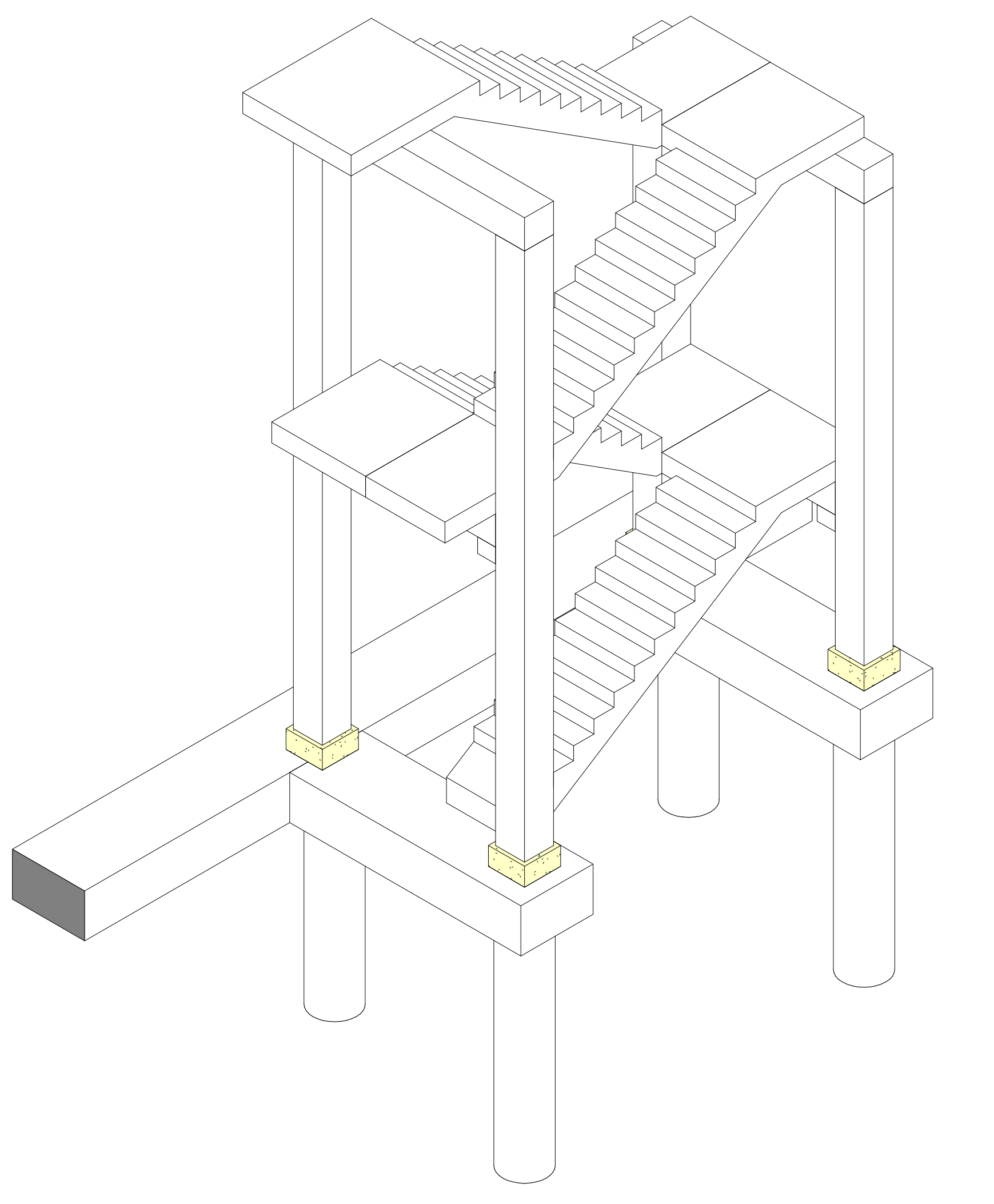
Plan L00 - Top view / Vista dall'alto -
1 : 50


STSB3
STSB2
STSB4
STSB1
178
SCP.40x40
40
240
110
20
70
430

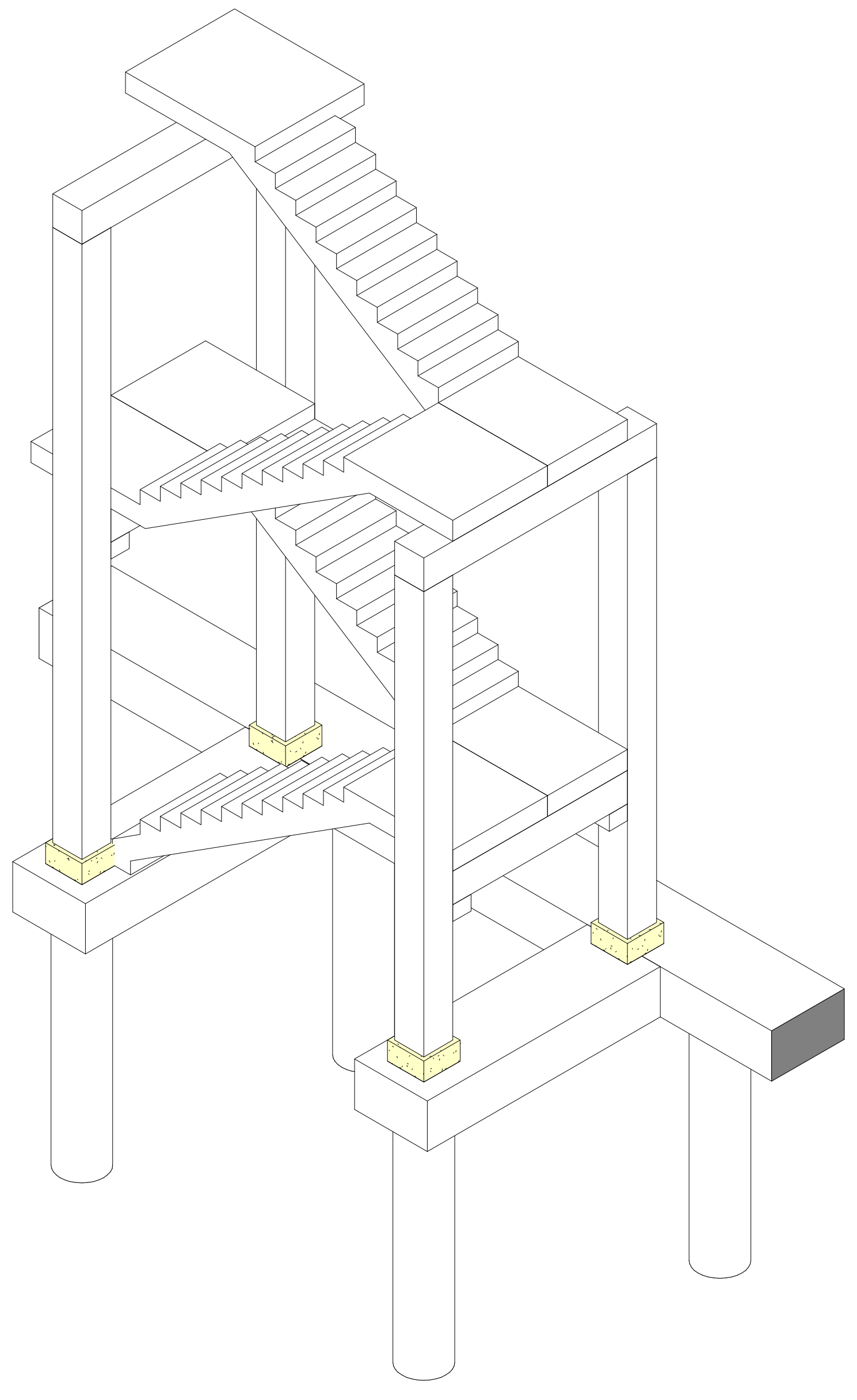
Plan L01 - Top view / Vista dall'alto -
1 : 50

COLUMN FOOT JOINTS / RIPRESE DEI PILASTRI

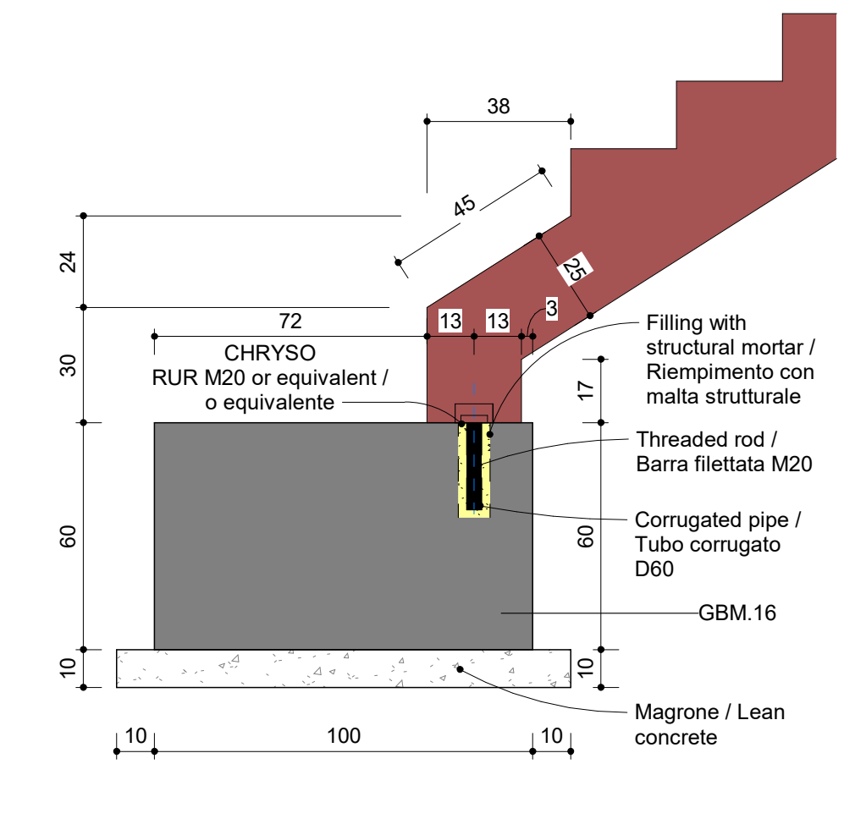
Joint type Ripresa	Count Conteggio	Column size [cm] Dimensioni pilastro	Foundation thickness Spessore fondazione	Peikko shoe type Tipo scarpa Peikko	Peikko bolt type Tipo tirafondo	Tube A Quantity N° armatubo A	Tube A Ø Ø armatubo A	Tube B Quantity N° armatubo B	Tube B Ø Ø armatubo B	Tube length Lungh. armatubo	Feet length Lungh. piedini
R11	6	40x40	60 cm	HPKM24	HPM24L	8	80 mm	0	0 mm	50 cm	10 cm
R12	2	40x50	60 cm	HPKM24	HPM24L	8	80 mm	0	0 mm	80 cm	40 cm
R13	2	40x40	120 cm	HPKM24	HPM24L	8	80 mm	0	0 mm	50 cm	10 cm



3d view - South-East staircase / Scala sud-est

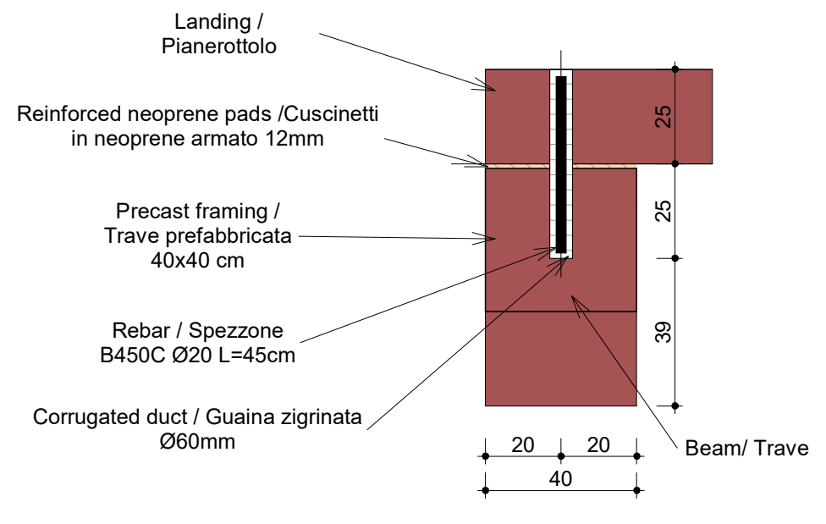


3d view - South-East staircase / Scala sud-est


38
45
25
24
30
60
10
72
13
13
3
17
CHRYSO RUR M20 or equivalent / o equivalente
Filling with structural mortar / Riempimento con malta strutturale
Threaded rod / Barra filettata M20
Corrugated pipe / Tubo corrugato D60
GBM.16
Magrone / Lean concrete
10
100

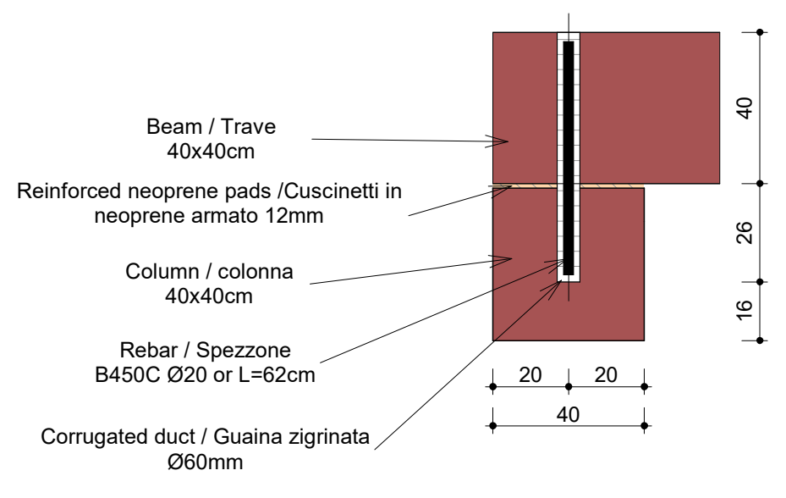
Sect. / Sez. - STSB4 -
1 : 20

Typical beam - Landing connection
Dettaglio tipico trave - pianerottolo

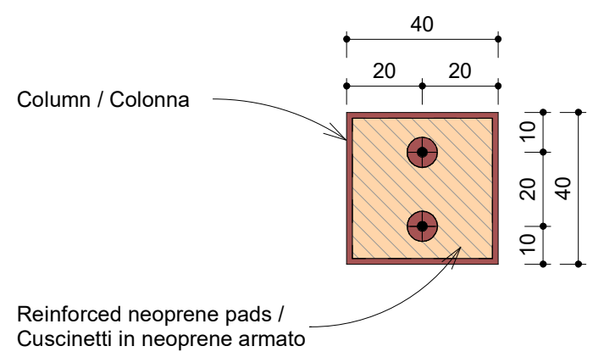

Landing / Pianerottolo
Reinforced neoprene pads /Cuscinetti in neoprene armato 12mm
Precast framing / Trave prefabbricata 40x40 cm
Rebar / Spezzone B450C Ø20 L=45cm
Corrugated duct / Guaina zigrinata Ø60mm
Beam/ Trave
25
25
39
20
20
40

Sec./ Sez.
1:20

Typical detail beam to column
Dettaglio tipico trave su colonna

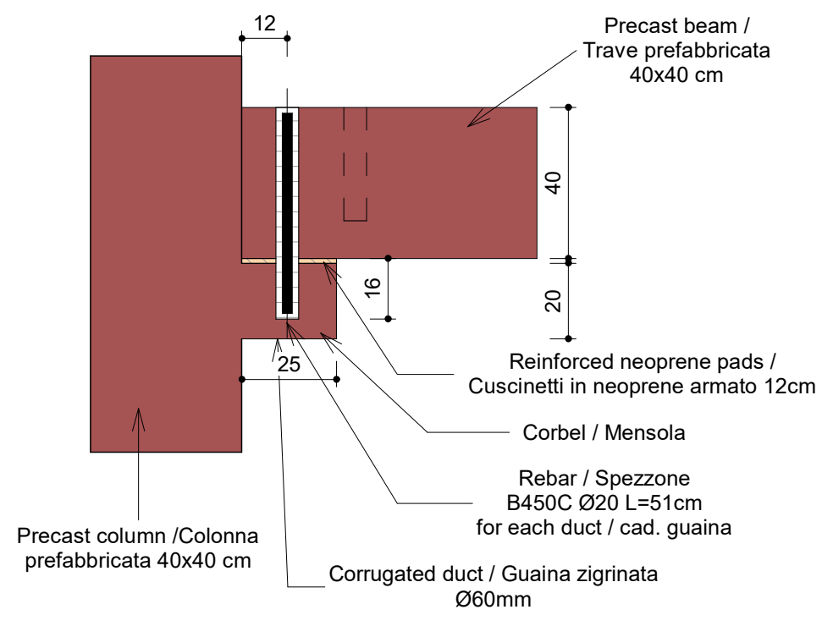

Beam / Trave 40x40cm
Reinforced neoprene pads /Cuscinetti in neoprene armato 12mm
Column / colonna 40x40cm
Rebar / Spezzone B450C Ø20 or L=62cm
Corrugated duct / Guaina zigrinata Ø60mm
40
26
16
20
20
40

Sec. / Sez.
1:20

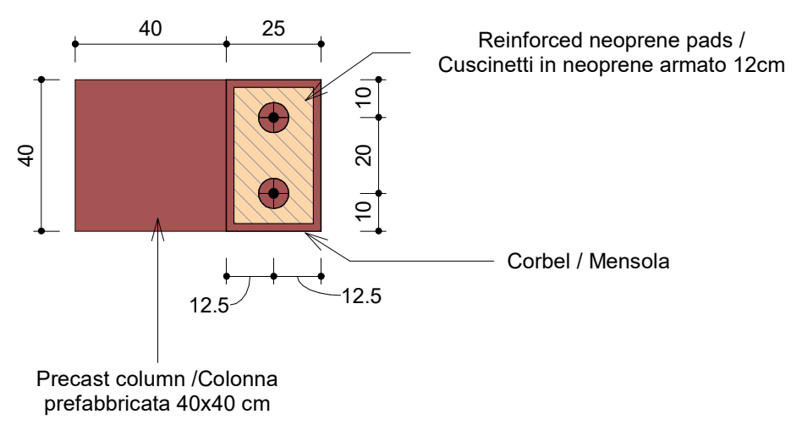

40
20
20
Column / Colonna
10
20
10
40
Reinforced neoprene pads / Cuscinetti in neoprene armato

Top view / Vista dall'alto
1:20

Typical detail beam to corbel
Dettaglio tipico trave su mensola


12
Precast beam / Trave prefabbricata 40x40 cm
40
16
20
25
Reinforced neoprene pads / Cuscinetti in neoprene armato 12cm
Corbel / Mensola
Rebar / Spezzone B450C Ø20 L=51cm for each duct / cad. guaina
Corrugated duct / Guaina zigrinata Ø60mm
Precast column /Colonna prefabbricata 40x40 cm

Sec./ Sez.
1:20


40
25
Reinforced neoprene pads / Cuscinetti in neoprene armato 12cm
10
20
10
40
Corbel / Mensola
12.5
12.5
Precast column /Colonna prefabbricata 40x40 cm

Top view / Vista dall'alto
1:20

Ga Plans Legend / Legenda Carpenteria

▆	Cast in place concrete section element / Sezione elementi gettati in opera
▒	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
☐	Precast concrete element view / Elementi prefabbricati in vista
⛶	Lean concrete section element / Sezione elementi magrone
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▨	Reinforced neoprene pads / Cuscinetti in neoprene armato
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
◐	S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

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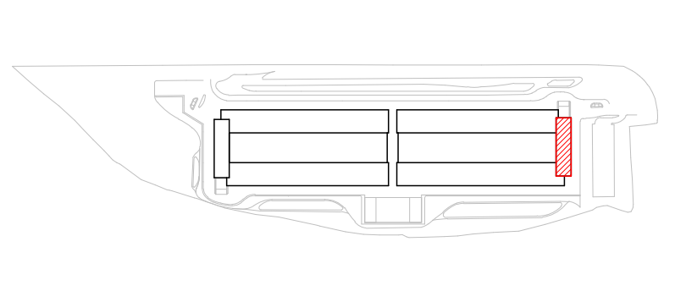
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50
N

Key Plan



NOTE:

1. Precast details may be modified by precast manufacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision / I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

2. For connection details of non-structural items, waterproofing and finishing layers, refer to Architectural drawings / Per i dettagli delle connesioni degli elementi non strutturali, impermeabilizzazione e finiture, fare riferimento ai disegni architettonici AE556 - AE557

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FIBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FIBH/MEG	16/12/2022

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

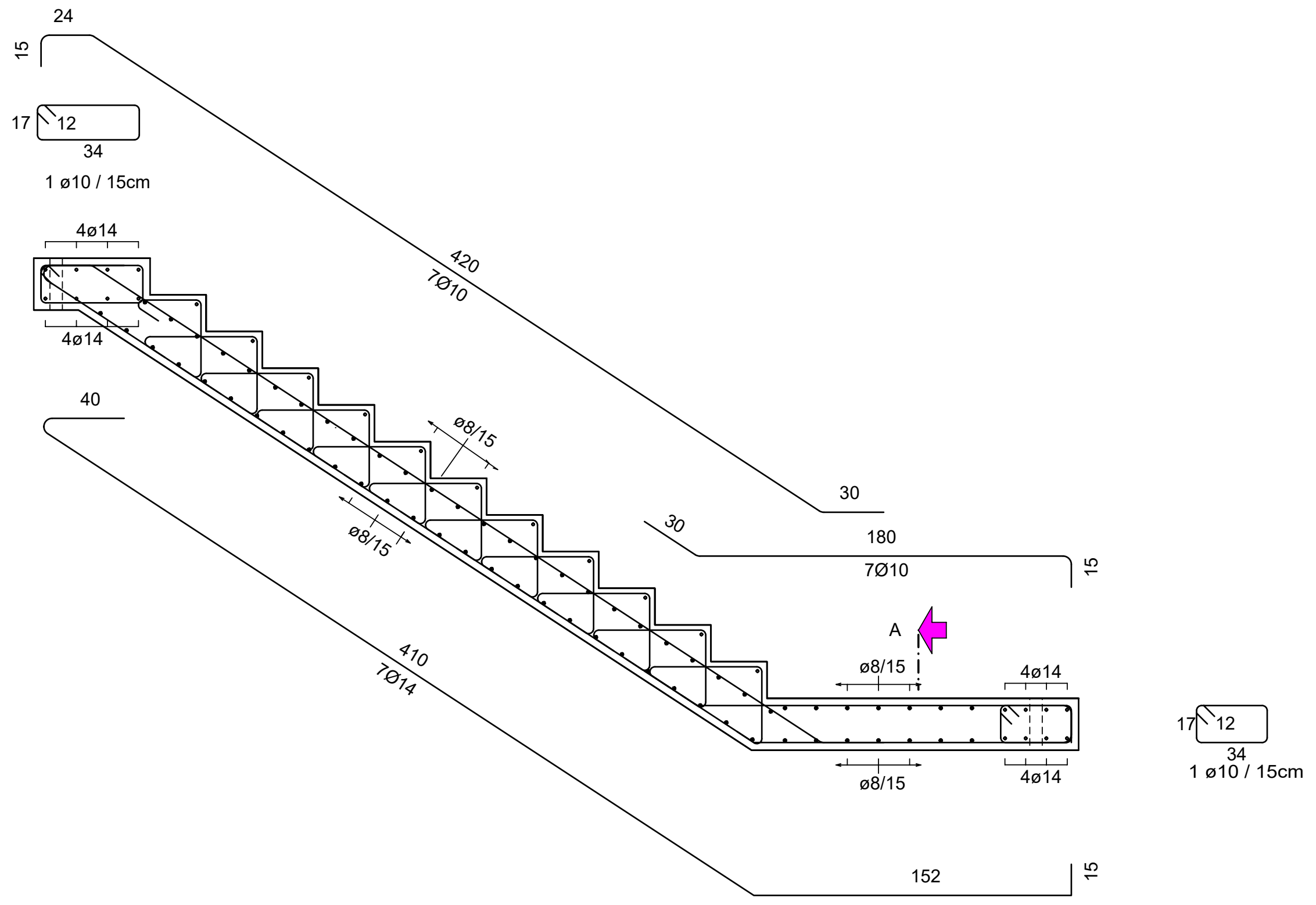
Drawing Title
External Stairs
South-East Staircase
Plan and Elevations

Project Status
ISSUED FOR CONSTRUCTION

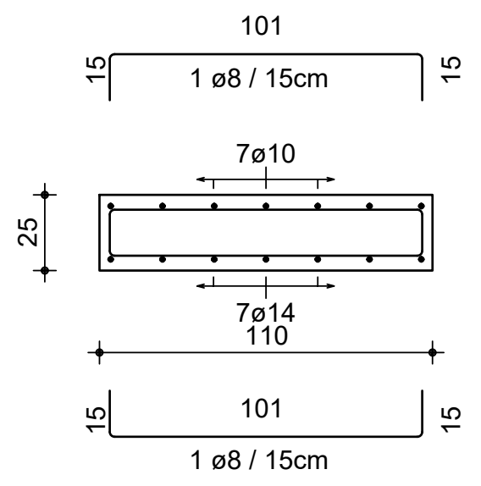
Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:50 / 1:20**	**P02**

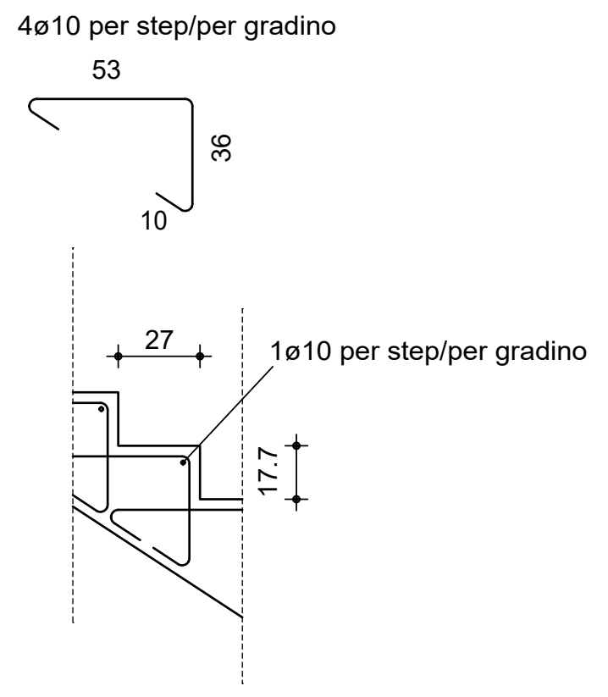
Drawing Number
SF108


24
15
17
12
34
1 ø10 / 15cm
4ø14
4ø14
420
7Ø10
40
ø8/15
ø8/15
30
30
180
7Ø10
15
A
ø8/15
4ø14
ø8/15
4ø14
410
7Ø14
152
15
17
12
34
1 ø10 / 15cm

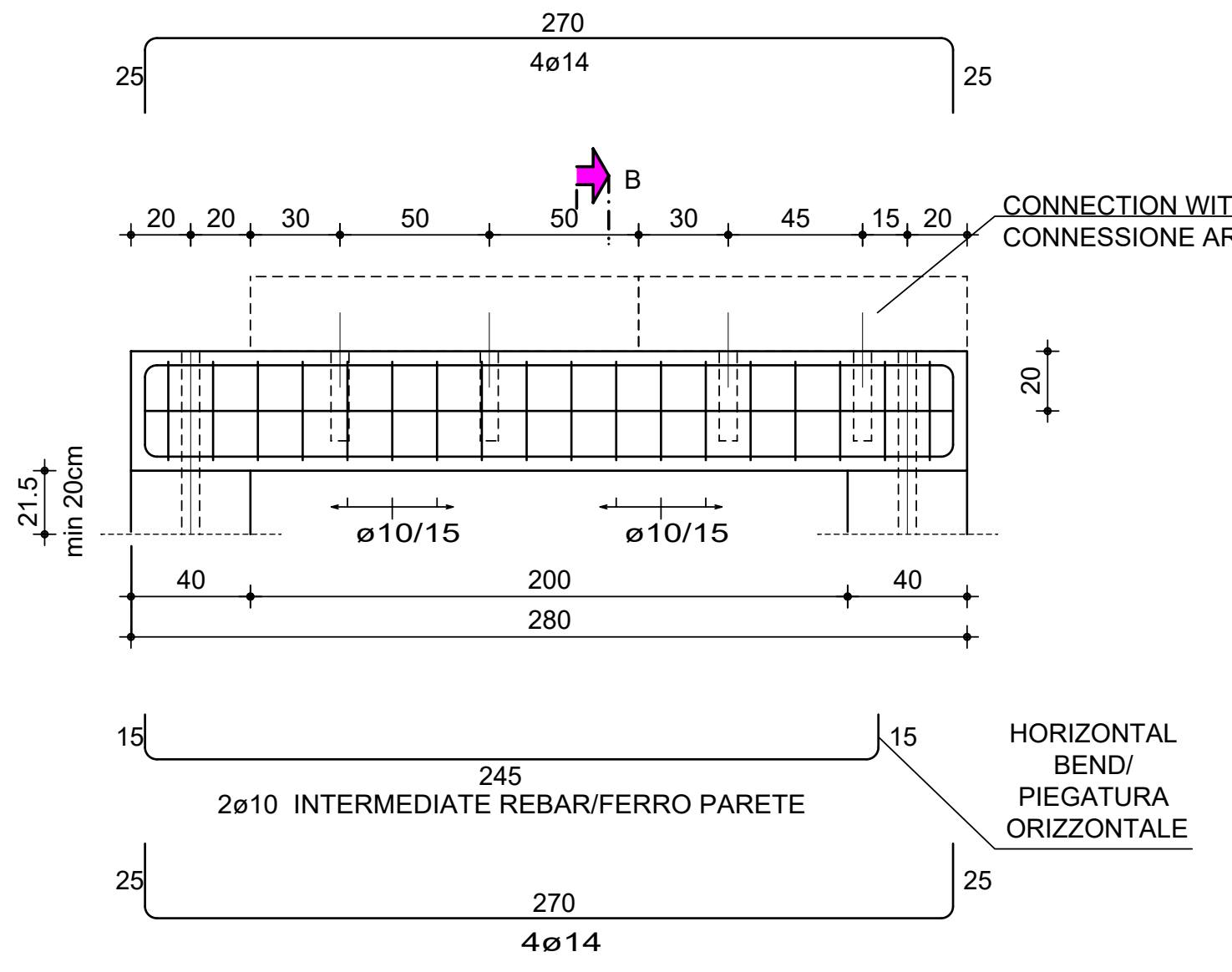
TYPICAL RAMP / RAMPA TIPICA


101
15
1 ø8 / 15cm
15
7ø10
25
7ø14
110
15
101
15
1 ø8 / 15cm

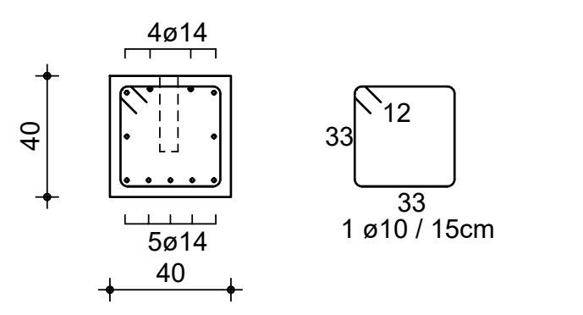
SECT./SEZ. -A-


4ø10 per step/per gradino
53
36
10
27
1ø10 per step/per gradino
17.7

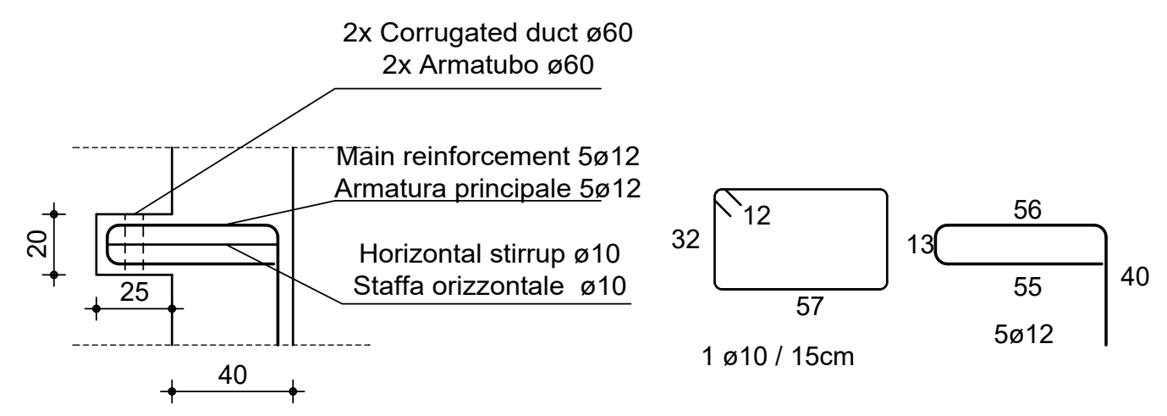
STEP DETAIL/ DETTAGLIO GRADINO


270
4ø14
25
25
B
20
20
30
50
50
30
45
15
20
CONNECTION WITH CORRUGATED DUCTS
CONNESSIONE ARMATUBO
20
21.5
min 20cm
ø10/15
ø10/15
40
200
40
280
15
245
2ø10 INTERMEDIATE REBAR/FERRO PARETE
15
HORIZONTAL
BEND/
PIEGATURA
ORIZZONTALE
25
270
4ø14
25

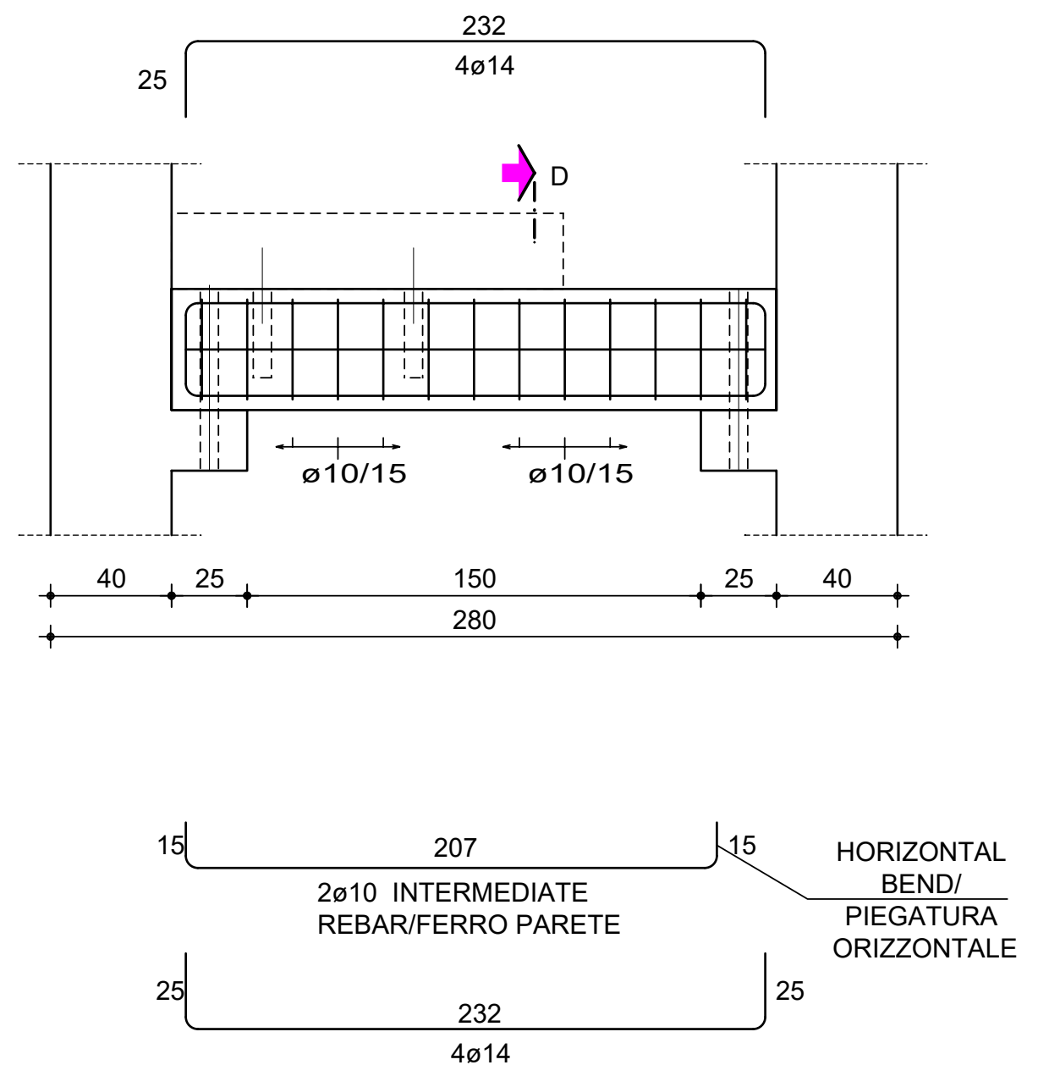
TYPICAL BEAM / TRAVE TIPICA


4ø14
40
5ø14
40
33
12
33
1 ø10 / 15cm

SECT./SEZ. -B-

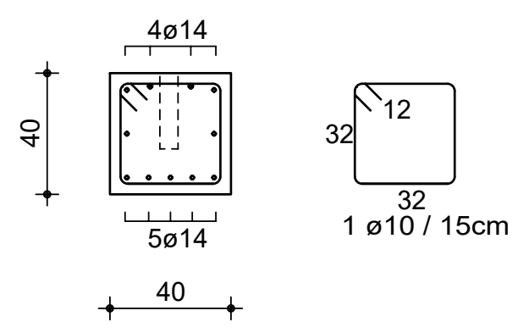

2x Corrugated duct ø60
2x Armatubo ø60
Main reinforcement 5ø12
Armatura principale 5ø12
Horizontal stirrup ø10
Staffa orizzontale ø10
20
25
40
32
12
57
1 ø10 / 15cm
56
13
55
40
5ø12

TYPICAL CORBEL / MENSOLA TIPICA


232
4ø14
25
D
ø10/15
ø10/15
40
25
150
25
40
280
15
207
15
2ø10 INTERMEDIATE
REBAR/FERRO PARETE
HORIZONTAL
BEND/
PIEGATURA
ORIZZONTALE
25
232
4ø14
25

TYPICAL BEAM SUPPORTED BY CORBELS

TRAVE TIPICA APPOGGIATA SULLE MENSOLE

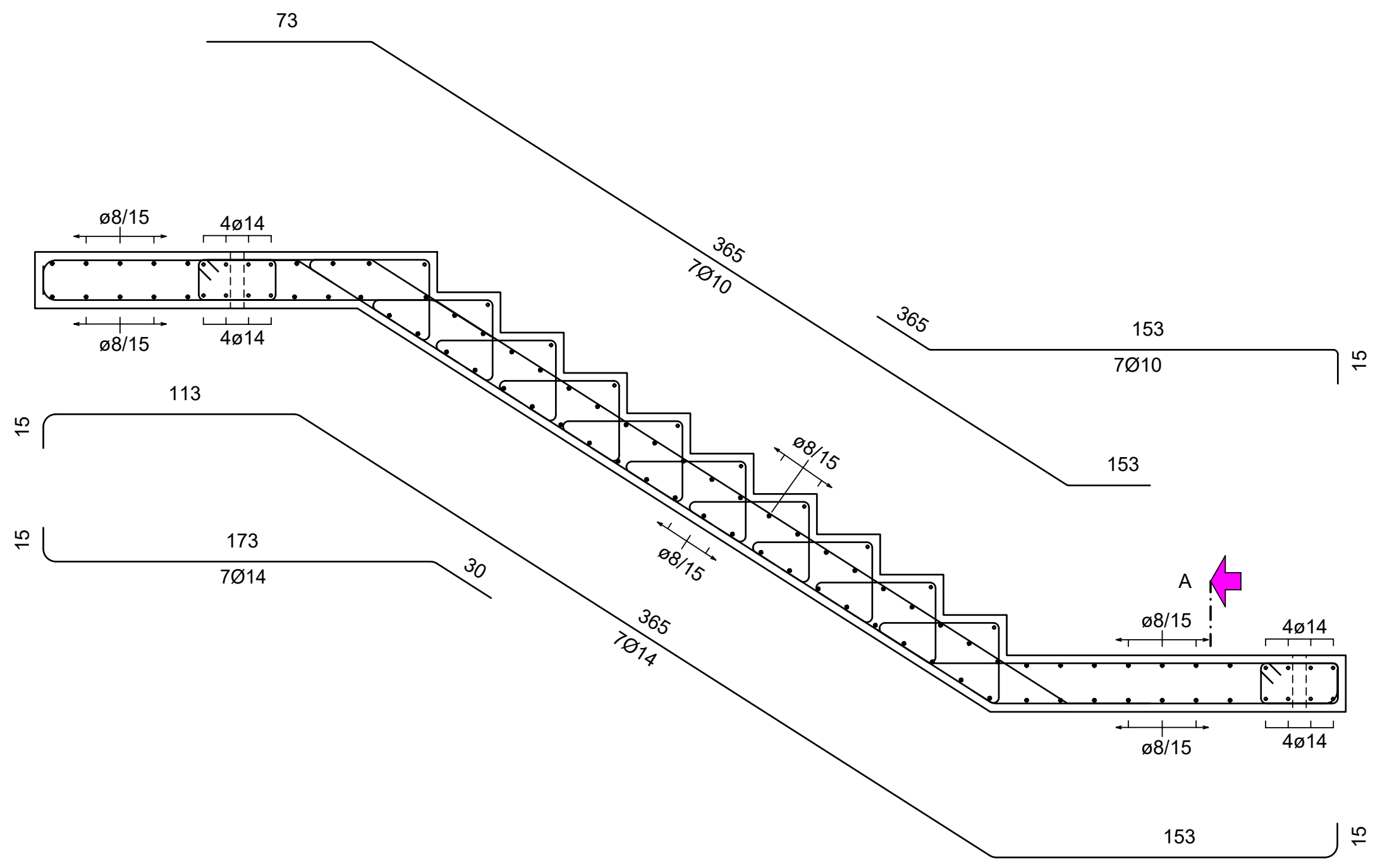

4ø14
40
5ø14
40
32
12
32
1 ø10 / 15cm

SECT./SEZ. -D-

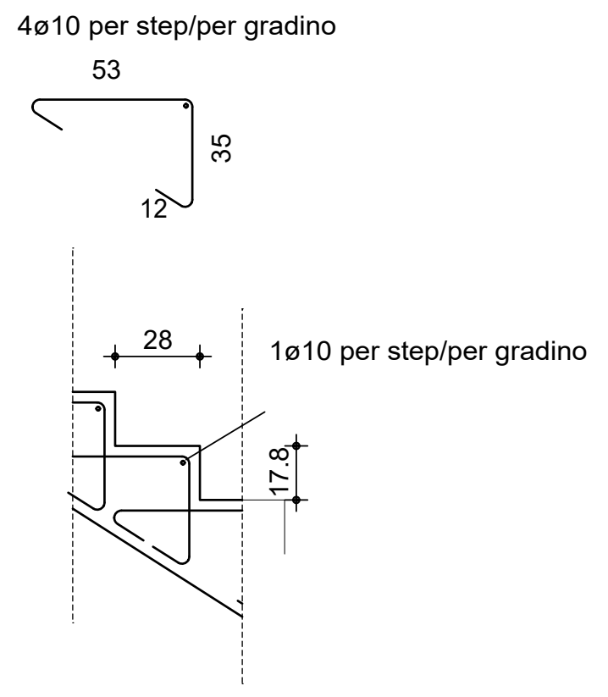
WEST STAIRCASE

SCALA OVEST

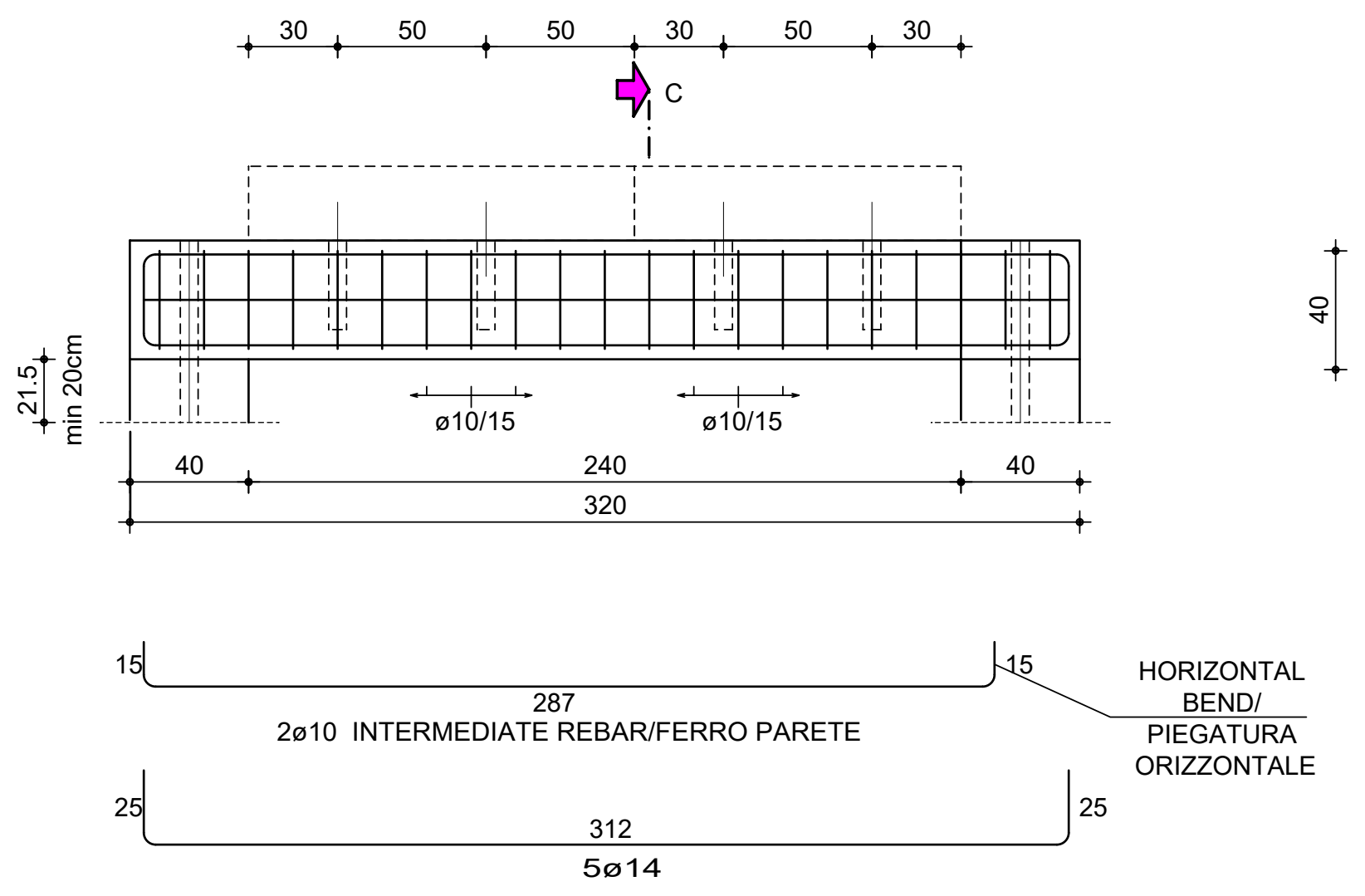
1:25


73
ø8/15
4ø14
ø8/15
4ø14
365
7Ø10
365
153
7Ø10
15
153
113
15
15
173
7Ø14
30
ø8/15
ø8/15
A
ø8/15
4ø14
ø8/15
4ø14
365
7Ø14
153
15

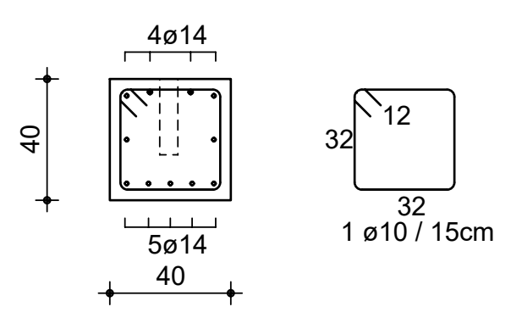
TYPICAL RAMP / RAMPA TIPICA


4ø10 per step/per gradino
53
35
12
28
1ø10 per step/per gradino
17.8

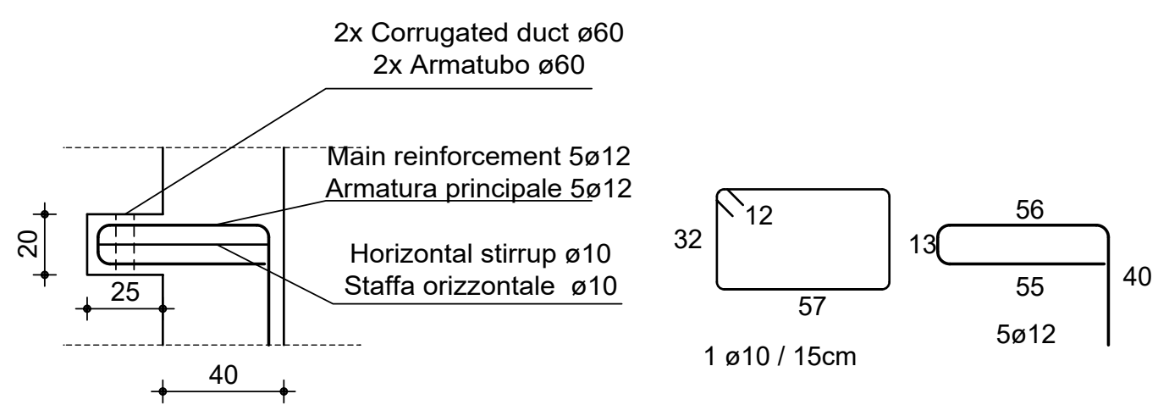
STEP DETAIL/ DETTAGLIO GRADINO


30
50
50
30
50
30
C
21.5
min 20cm
ø10/15
ø10/15
40
240
40
320
15
287
2ø10 INTERMEDIATE REBAR/FERRO PARETE
15
HORIZONTAL
BEND/
PIEGATURA
ORIZZONTALE
25
312
5ø14
25

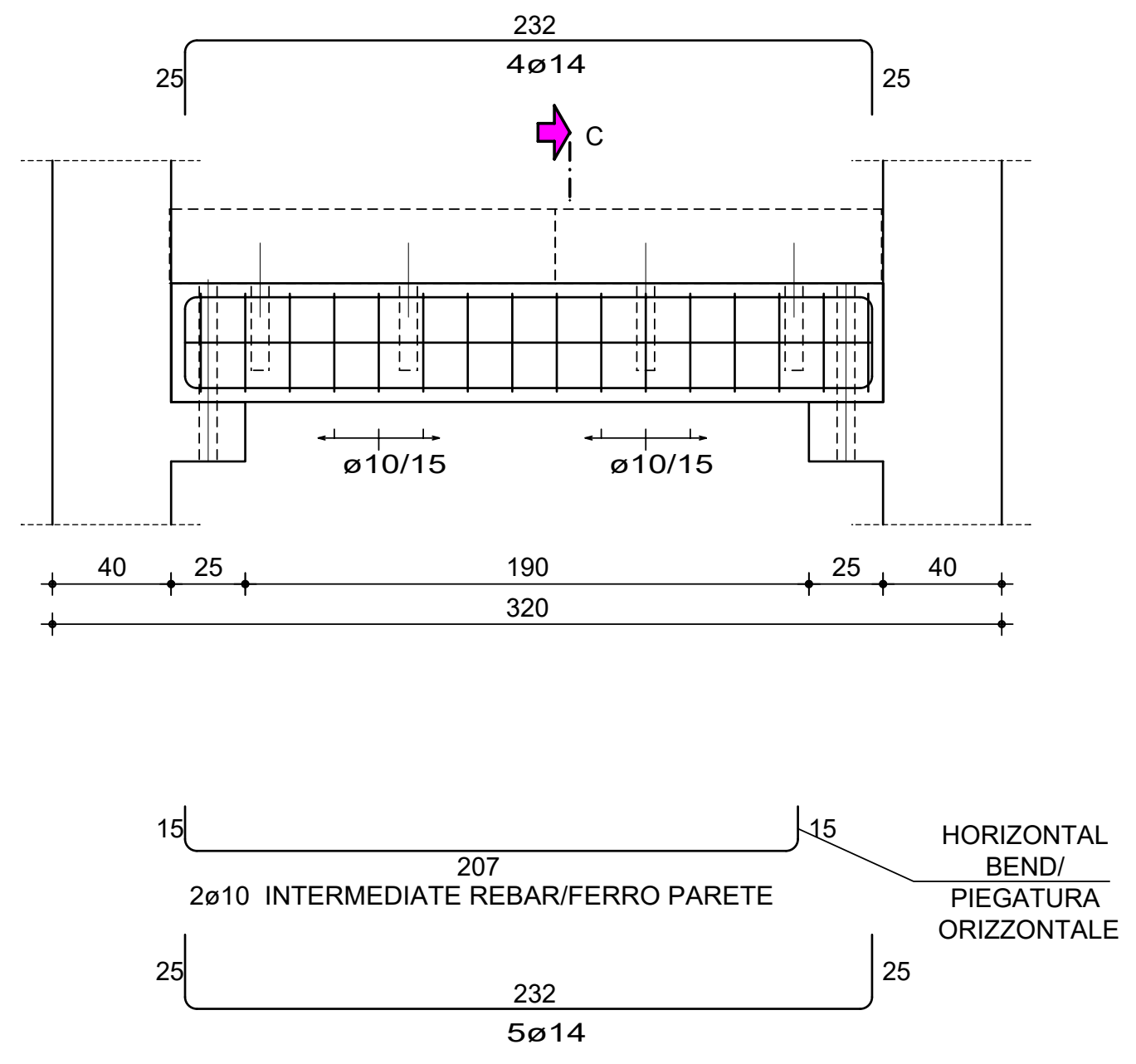
TYPICAL BEAM / TRAVE TIPICA


4ø14
40
5ø14
40
32
12
32
1 ø10 / 15cm

SECT./SEZ. -C-


2x Corrugated duct ø60
2x Armatubo ø60
Main reinforcement 5ø12
Armatura principale 5ø12
Horizontal stirrup ø10
Staffa orizzontale ø10
20
25
40
32
12
57
1 ø10 / 15cm
56
13
55
40
5ø12

TYPICAL CORBEL / MENSOLA TIPICA


232
4ø14
25
25
C
ø10/15
ø10/15
40
25
190
25
40
320
15
207
15
2ø10 INTERMEDIATE REBAR/FERRO PARETE
HORIZONTAL
BEND/
PIEGATURA
ORIZZONTALE
25
232
5ø14
25

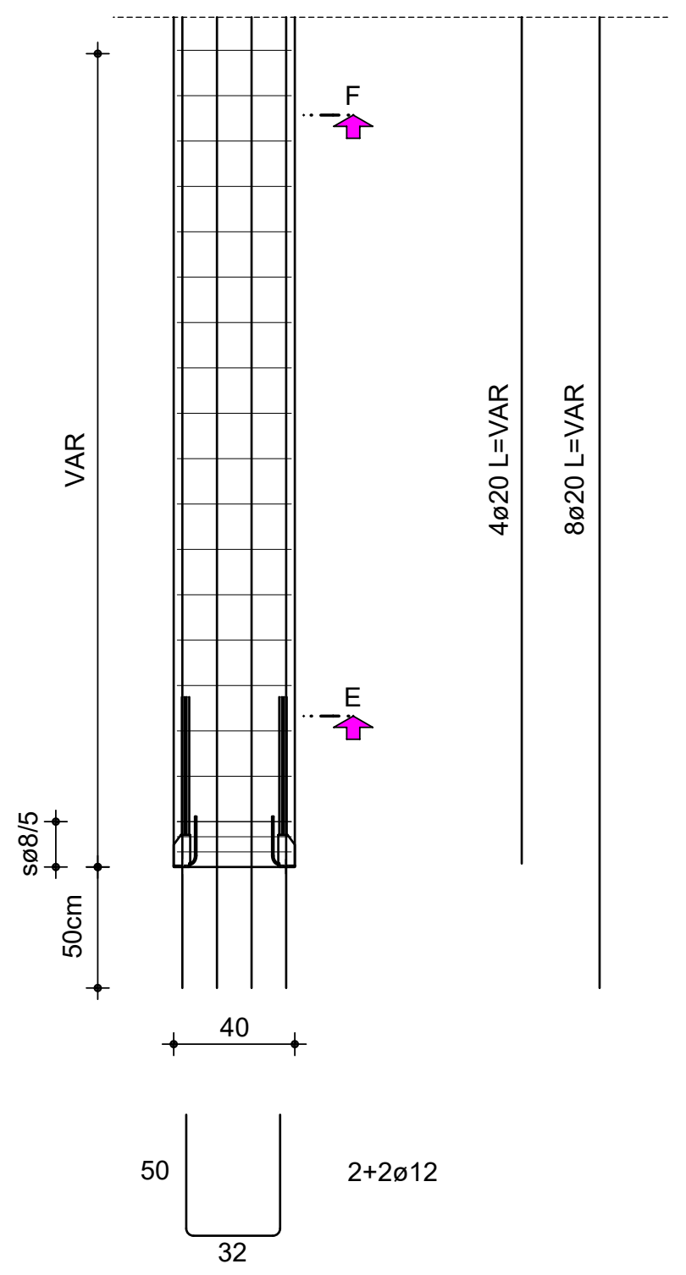
TYPICAL BEAM SUPPORTED BY CORBELS

TRAVE TIPICA APPOGGIATA SULLE MENSOLE

SOUTH-EAST STAIRCASE

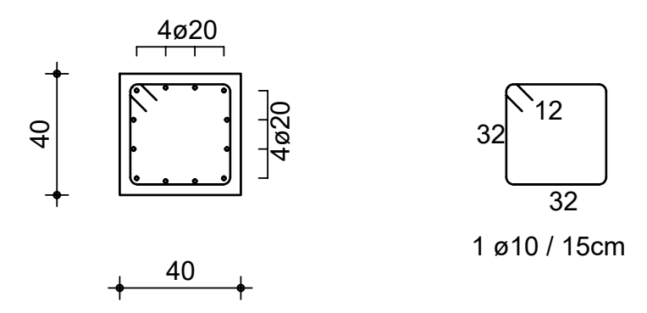
SCALA SUD EST

1:25

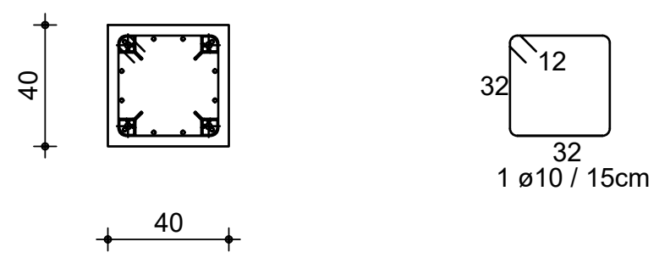

F
E
VAR
4ø20 L=VAR
8ø20 L=VAR
sø8/5
50cm
40
50
2+2ø12
32

TYPICAL COLUMN/ COLONNA TIPICA

1:25


4ø20
40
4ø20
40
32
12
32
1 ø10 / 15cm

SECT./SEZ. -F-


40
40
32
12
32
1 ø10 / 15cm

SECT./SEZ. -E-

N. 4 PEIKKO HPKM 24

MATERIALS / *MATERIALI*			
CONCRETE CLASS *CLASSE CALCESTRUZZO*			**C40/50**
AT UNSHORING AL DISARMO	*Rck ⩾*	1,5	*kN/cm²*
AT 28 DAYS A 28 GIORNI	*Rck ⩾*	5,0	*kN/cm²*
REBARS CLASS *TIPO ACCIAIO*			**B 450 C**

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 4 (XF3)
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	35 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	20 mm

General Notes

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8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
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7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
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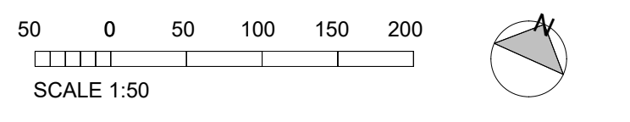
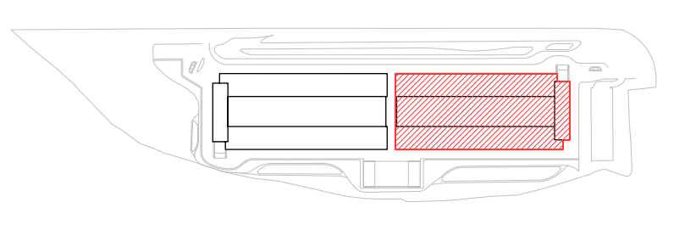
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.


50
0
50
100
150
200
SCALE 1:50
N

Key Plan



P02	Issued for Construction	DAP/FIBH/MEG	03/02/2023
P01	Issued for Compass Review	DAP/FIBH/MEG	16/12/2022
Rev	Details	By / Chkd / App	Date

Client

COMPASS™ datacenters

Architectural / Civil

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

External Stairs
Details and Reinforcement

Project Status

ISSUED FOR CONSTRUCTION

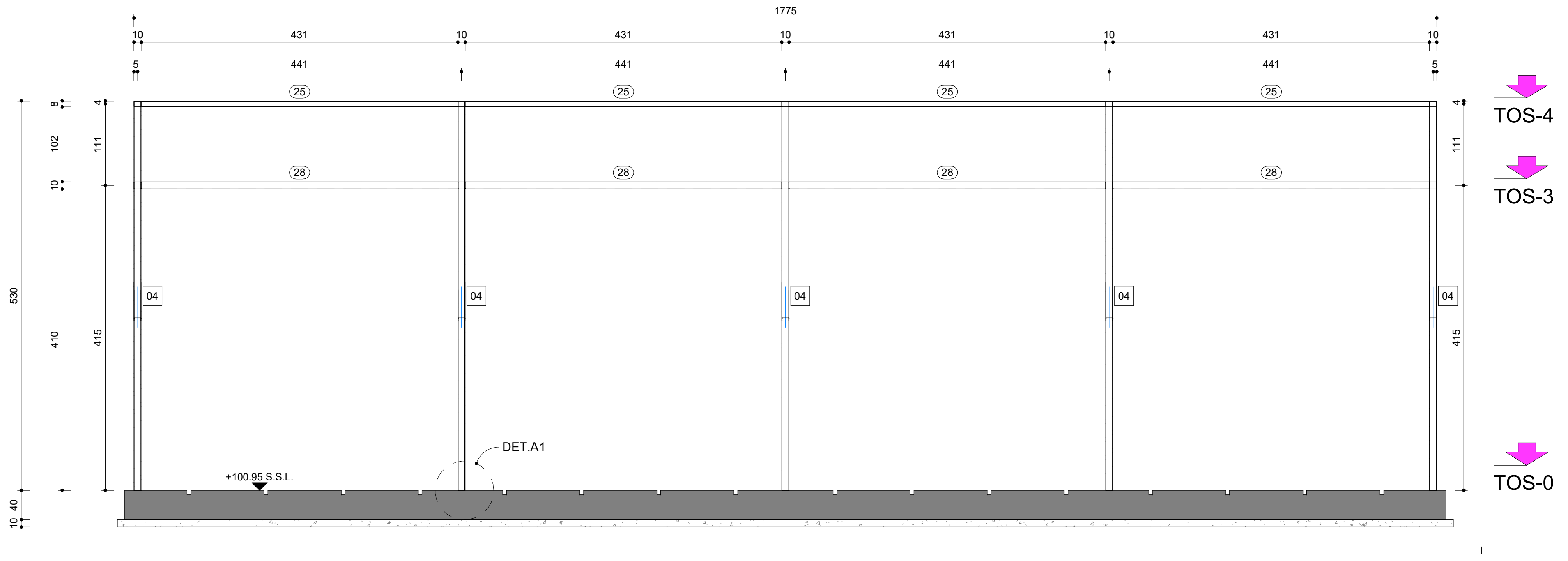
Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:25**	**P02**

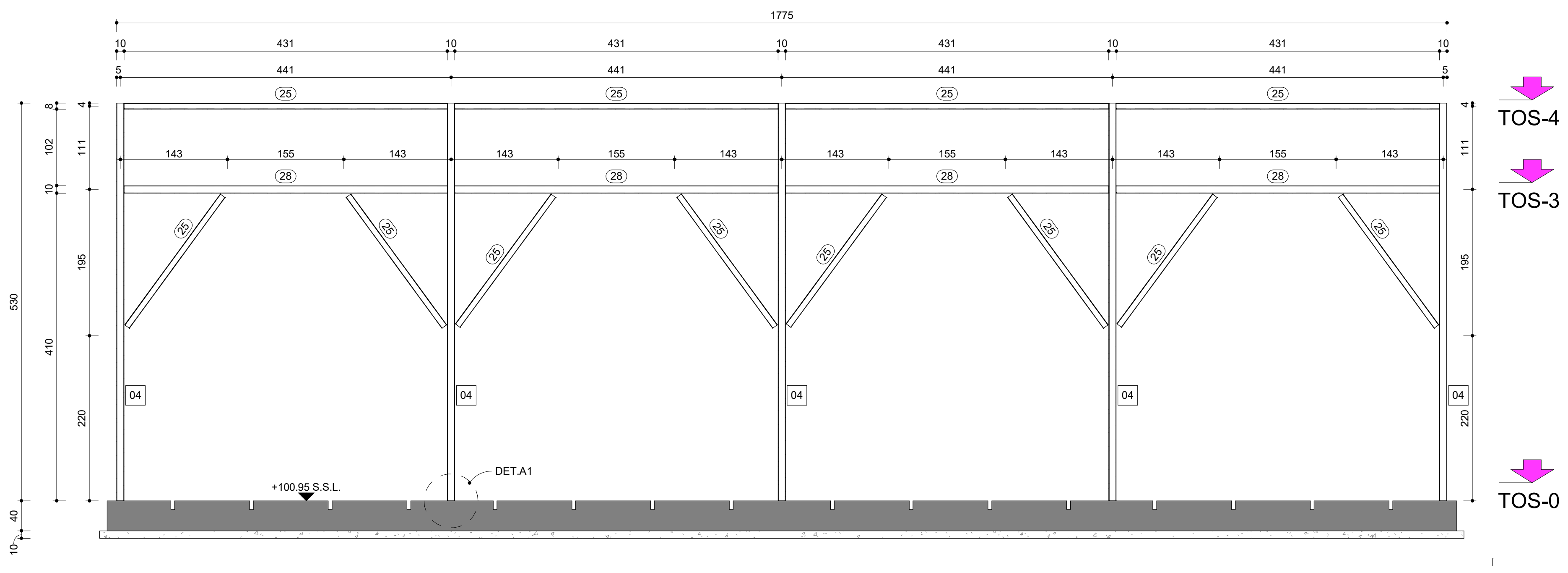
Drawing Number

SF509

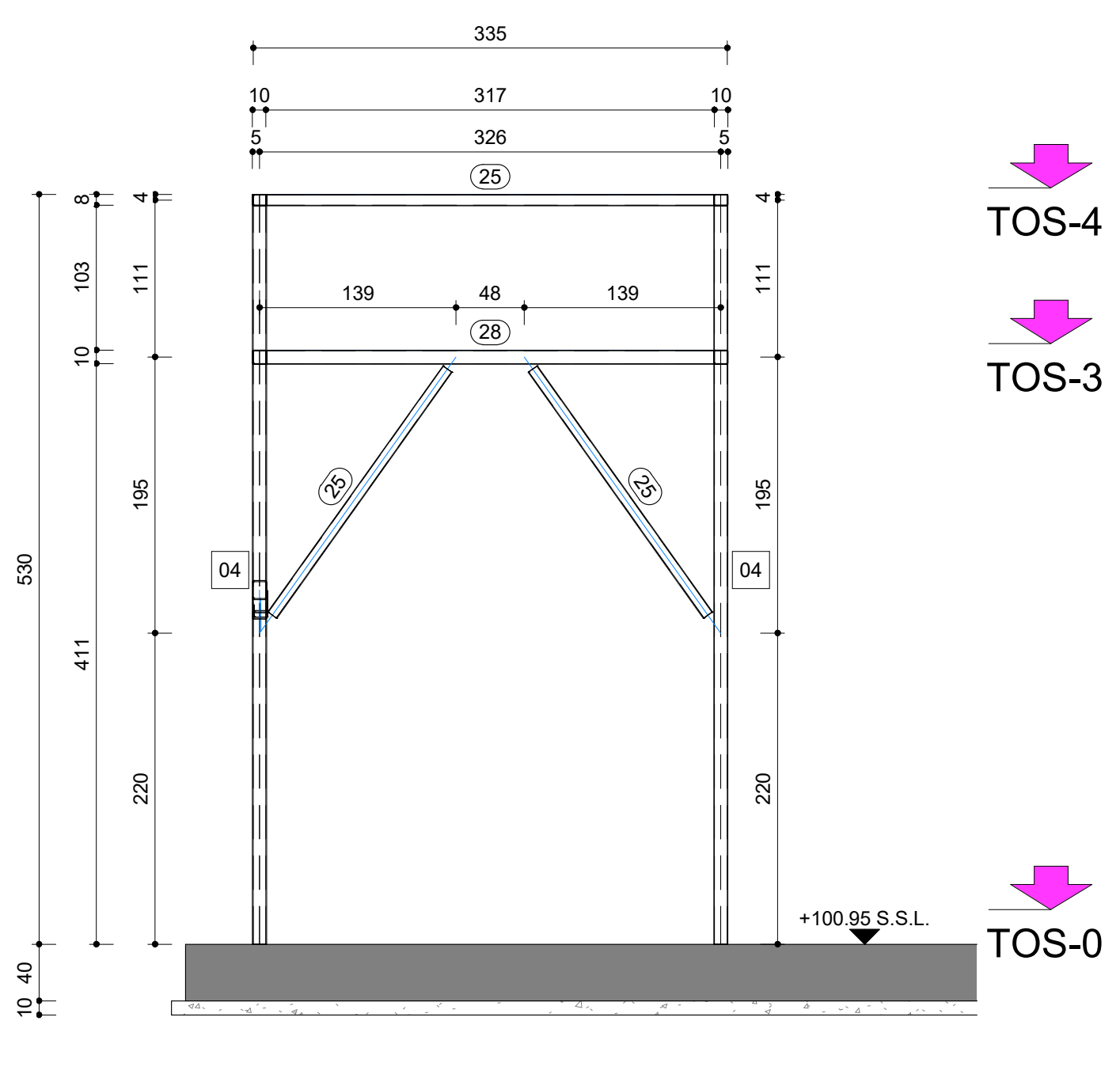
A0 - Do not scale



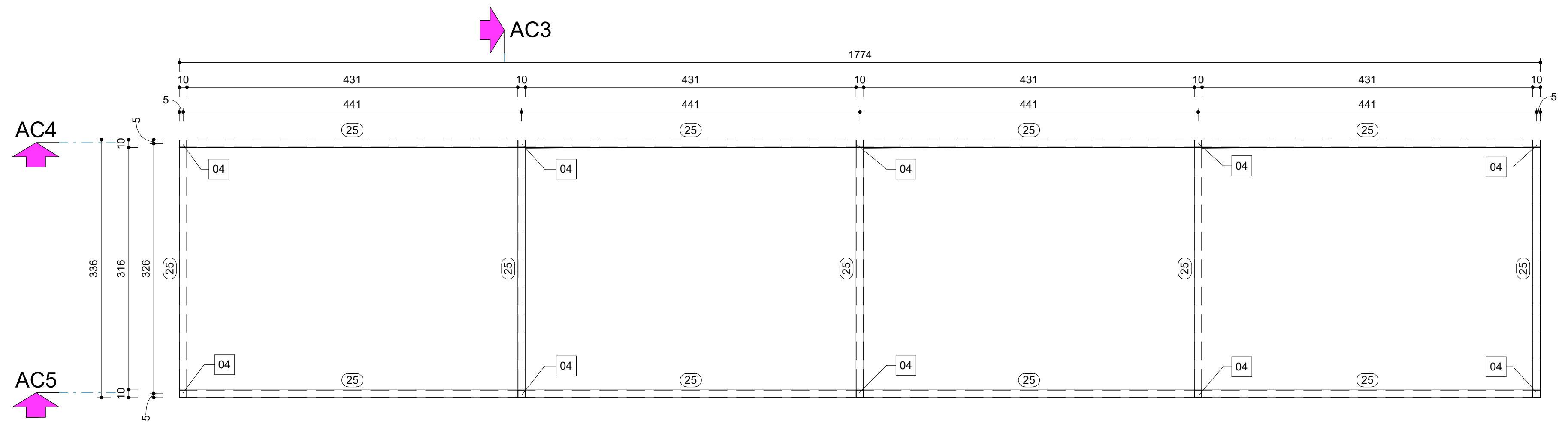
Sect. / Sez. - AC5 -
1 : 50



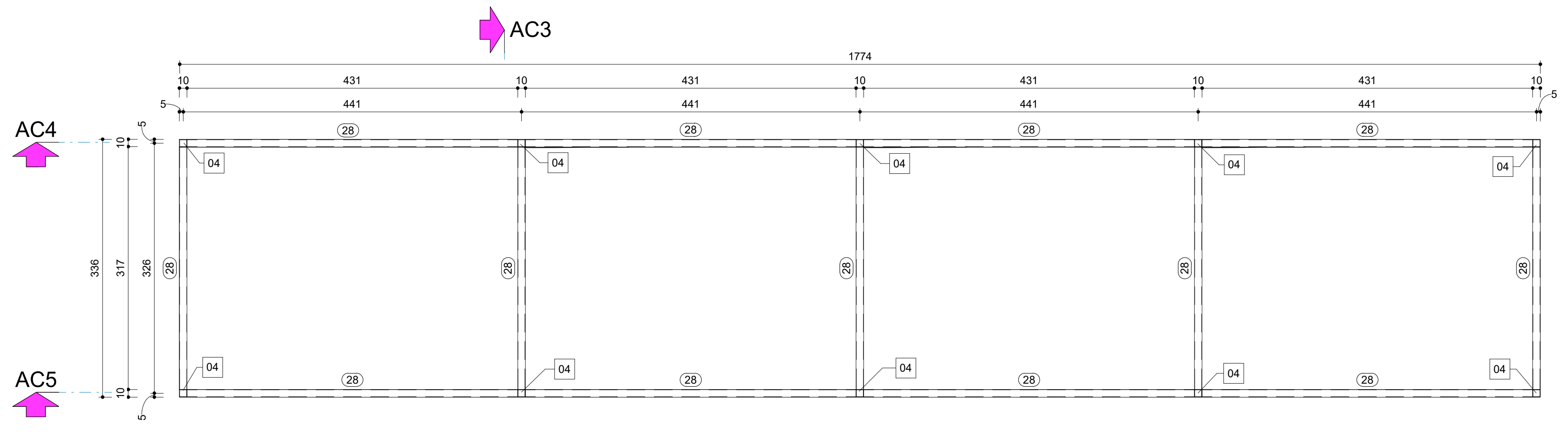
Sect. / Sez. - AC4 -
1 : 50



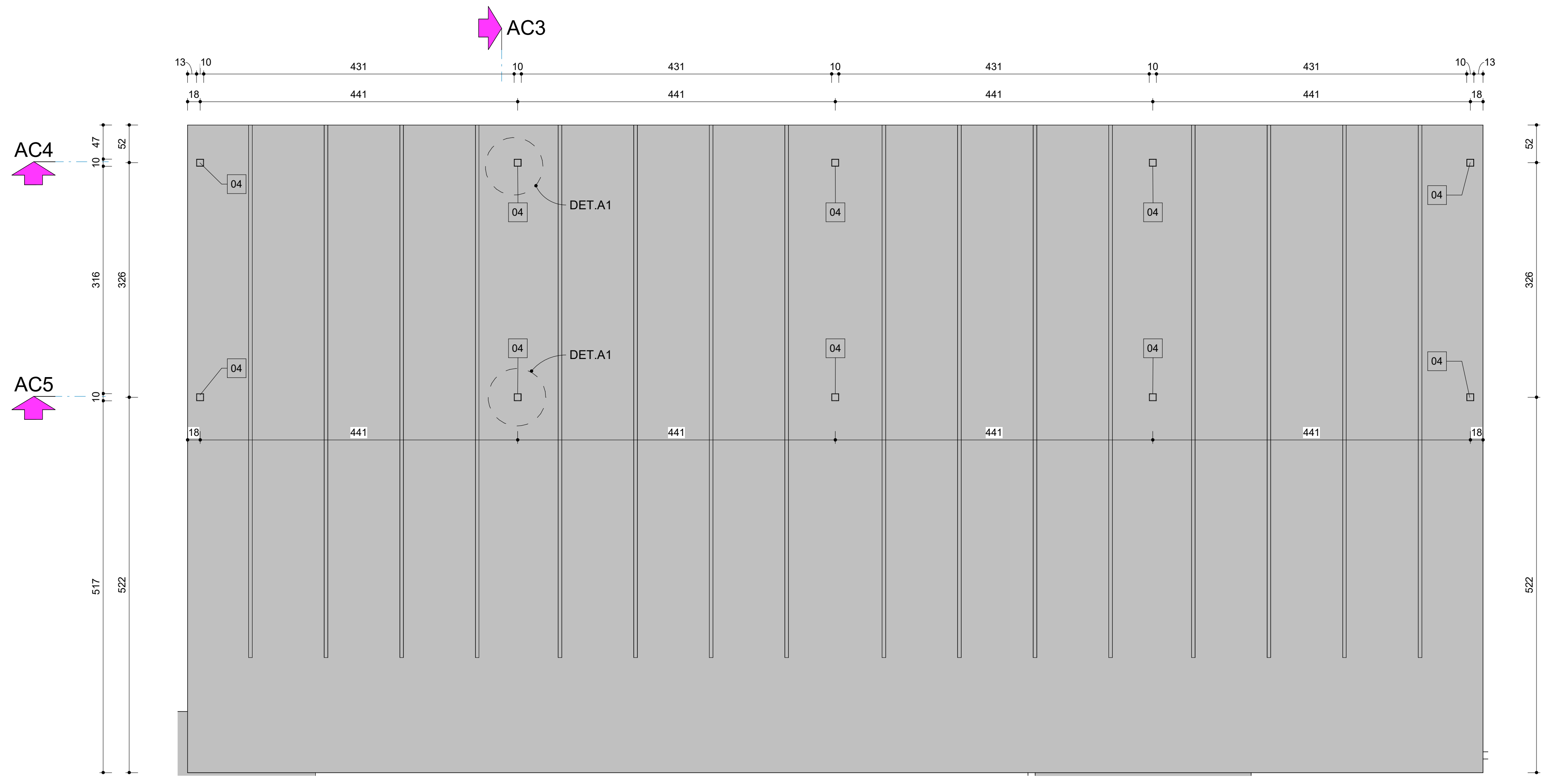
Sect. / Sez. - AC3 -
1 : 50



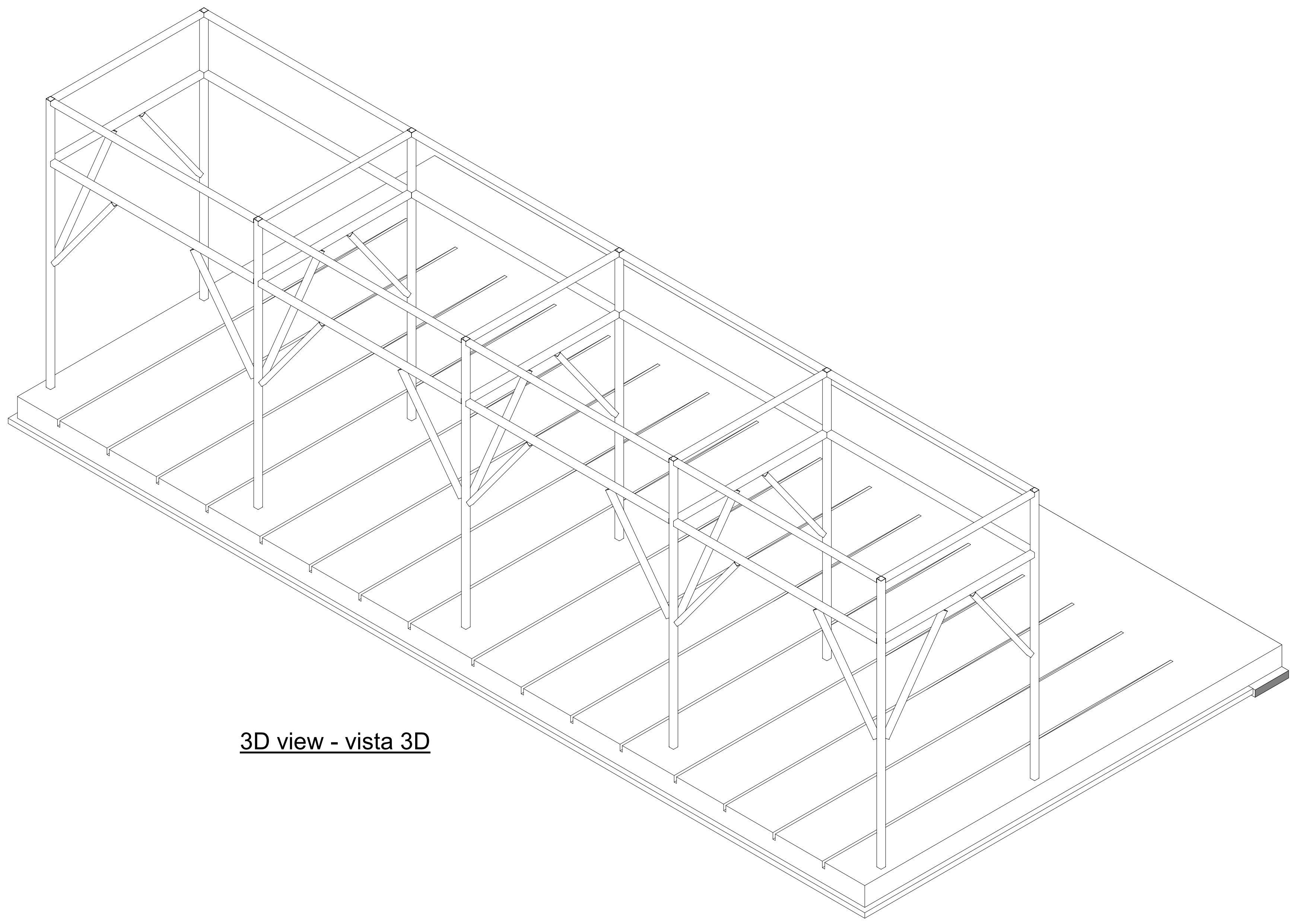
TOS-4 ACU hood supporting frame / struttura portante dei condotti - Top view / Vista dall'alto -
1 : 50



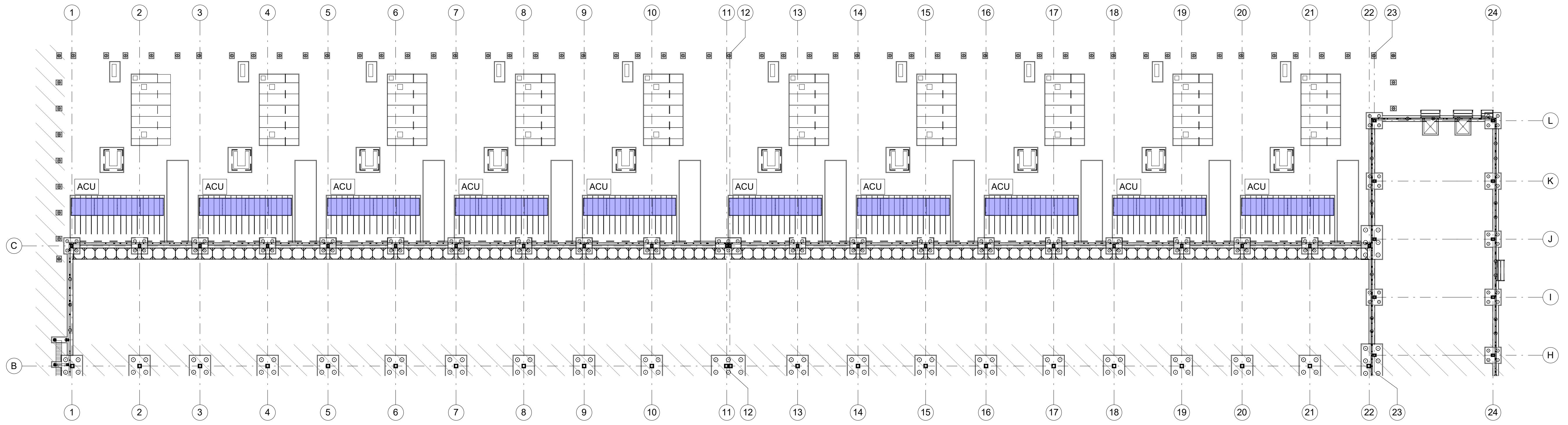
TOS-3 ACU hood supporting frame / struttura portante dei condotti - Top view / Vista dall'alto -
1 : 50



TOS-0 ACU hood supporting frame / struttura portante dei condotti - Top view / Vista dall'alto -
1 : 50



3D view - vista 3D



Keyplan - Top view / Vista dall'alto -
1 : 500

🟦 Hood supporting frame / Struttura portante dei condotti

General Notes

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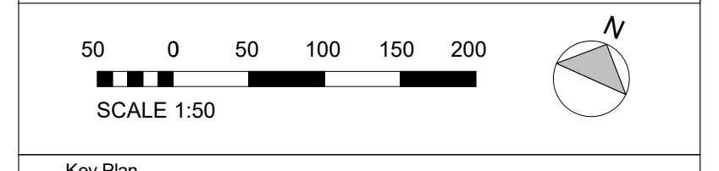
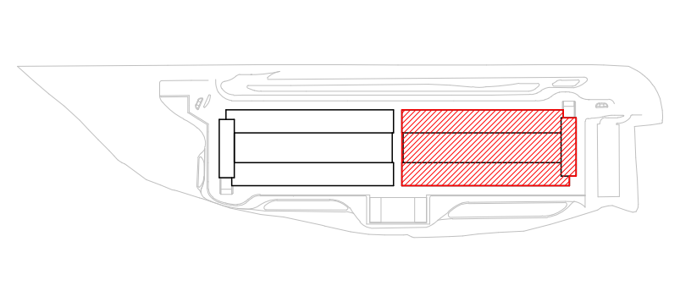


Key Plan



NOTES / NOTE:

1. For base anchorage details refer to drawing SF510 / Per i dettagli degli ancoraggi di base fare riferimento alla tavola SF510

2. All elements are to be considered fixed at end connections. Welds are not drawn, all welds are to be considered full fillet welds and double full fillet welds whenever possible / Gli elementi sono considerati tra loro incastrati. Le connessioni tra gli elementi, sebbene non specificate, si intendono saldate con cordoni d'angolo su entrambi i lati dell'elemento da collegare, ove la geometria lo consenta

STEEL FRAMING / TRAVI E CONTROVENTI IN ACCIAIO

20	SFM.CHS88.9x5
21	SFM.HE140A
22	SFM.IPE140
23	SFM.L60x60x5
24	SFM.RHS100X60x5
25	SFM.RHS100X80x5
26	SFM.SHS60x60x5
28	SFM.SHS100x100x5
29	SFM.UPN140

STEEL COLUMNS / PILASTRI IN ACCIAIO

01	SCM.HE300A
02	SCM.SHS300x300x12.5
03	SCM.RB16
04	SCM.SHS100x100x5
05	SCM.SHS60x60x5

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

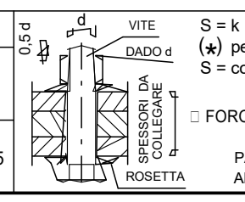
PROFILI	LAMIERE	TUBI
☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☒ S 275 H J0 ☐ S 355 H J0

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola ⊠, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☒ Zincatura a caldo UNI EN ISO 1461 : 2009 ☐ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☐ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☒ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885



$S = k\ d\ F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
FORO d + 1,0 mm per d < 20 mm
d + 1,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

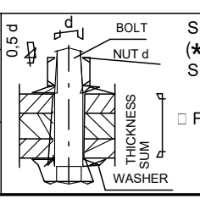
ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☒ S 275 H J0 ☐ S 355 H J0

WELDS Filled welds not specified must have a throat depth of "a", ⊠ a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☒ Hot dip galvanized UNI EN ISO 1461 : 2009 ☐ Painted according to specifications

BOLT PROTECTION ☐ Rought ☐ Cold galvanized UNI EN ISO 4042 : 2003 ☒ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885



$S = k\ d\ F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
FORO d + 1,0 mm for d < 20 mm
d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	FCT/FIBH/MEG	17/02/2023
P02	Issued for Compass Review	FCT/FIBH/MEG	01/02/2023
P01	Issued for QA/QC	FCT/FIBH/MEG	27/01/2023

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
ACU Hoods Supporting Structure
Plans and Sections

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

Status Code
S5

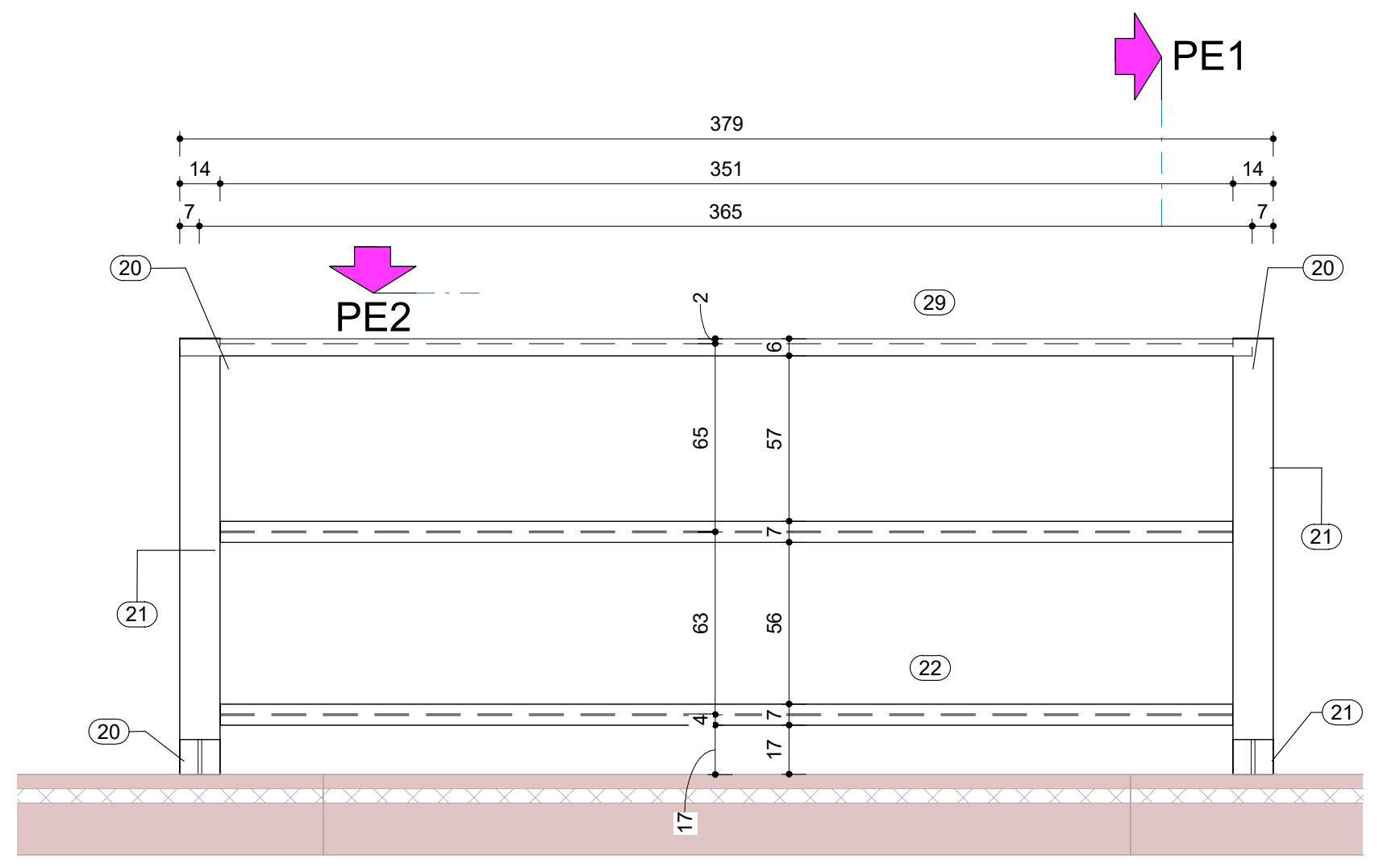
Project Number
P10424

Scale @ A0
1:50

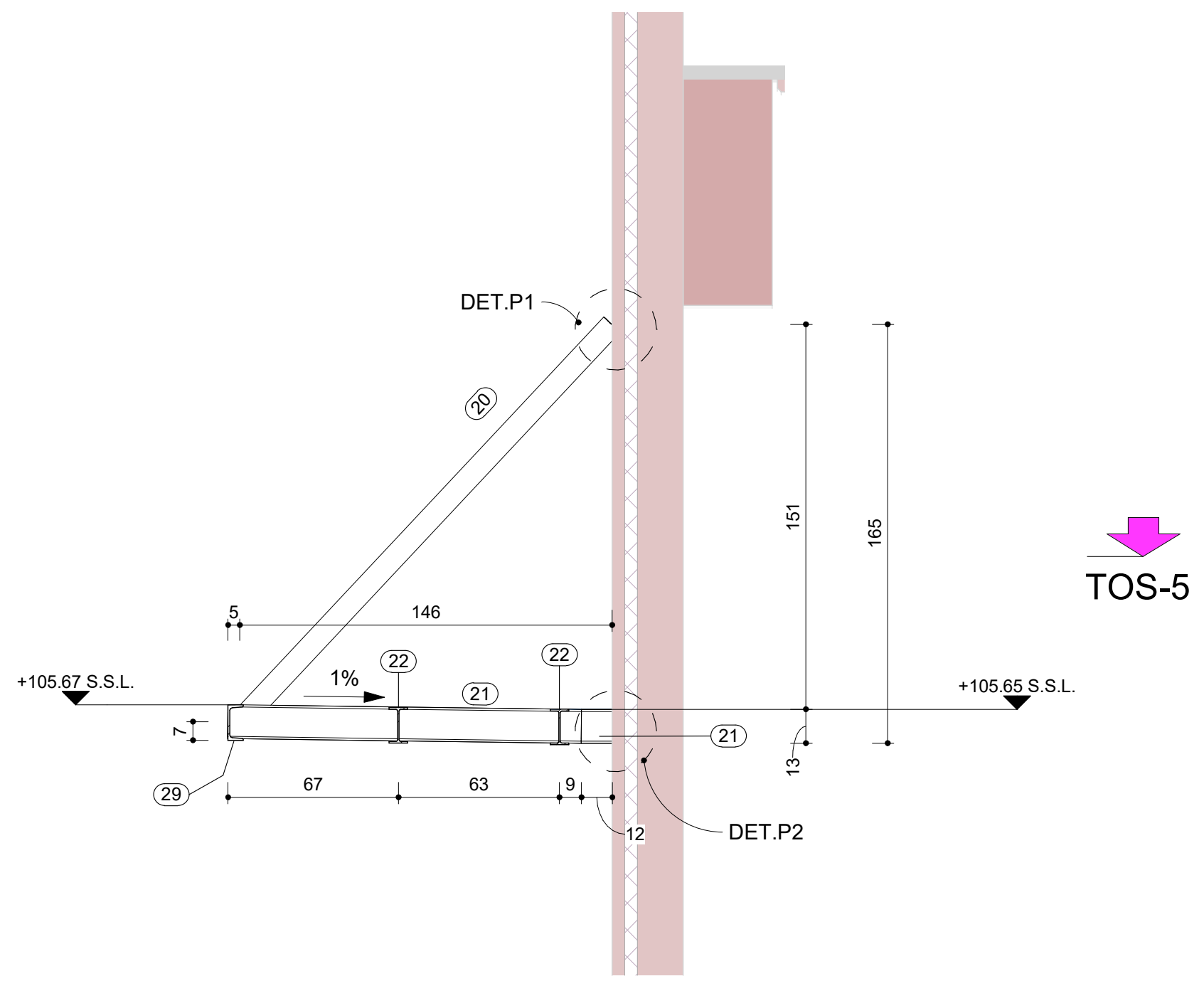
Revision
P03

Drawing Number
SF109

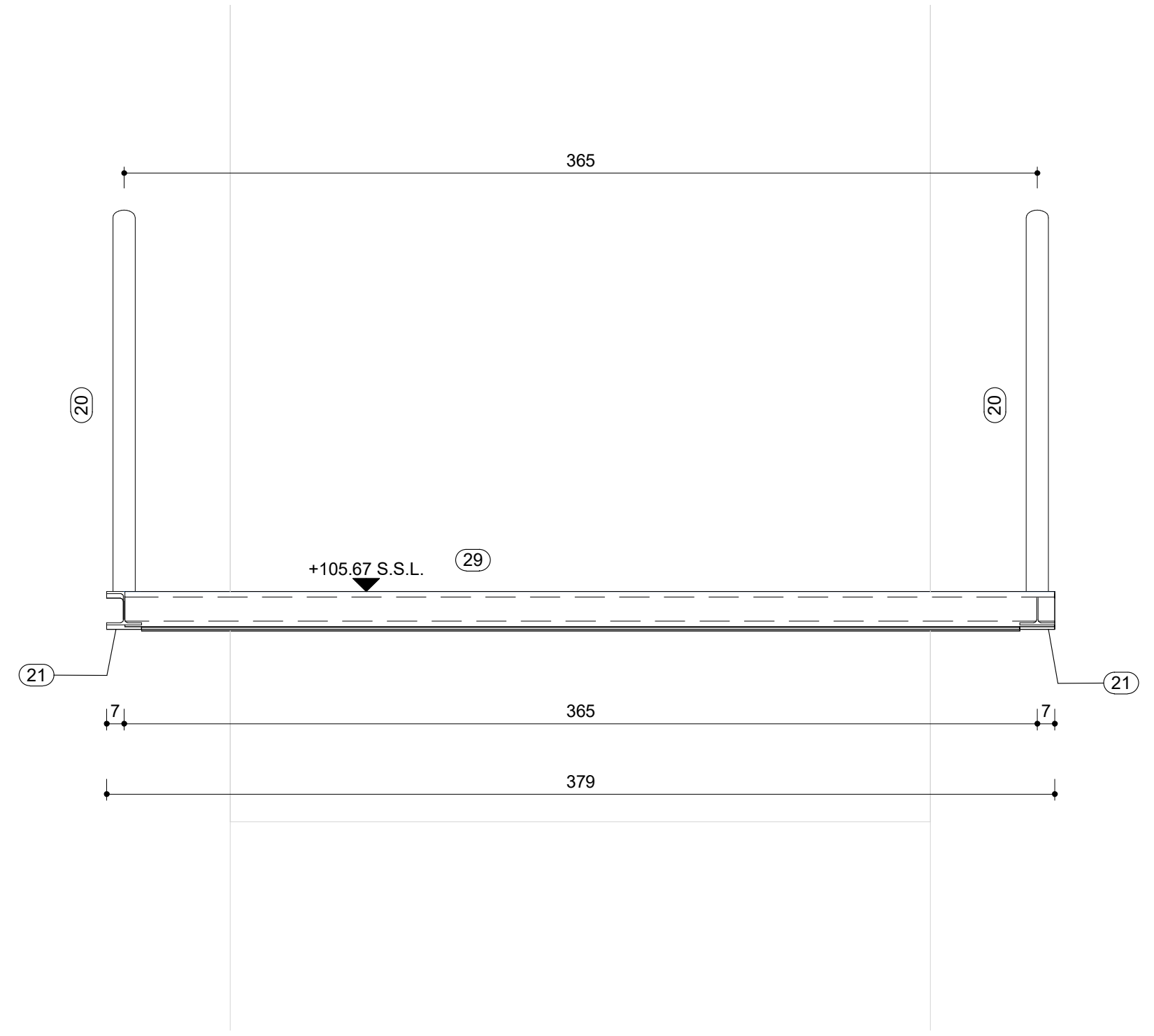
A0 - Do not scale



TOS-5 Canopies / Pensiline - Top view / Vista dall'alto -
1 : 25

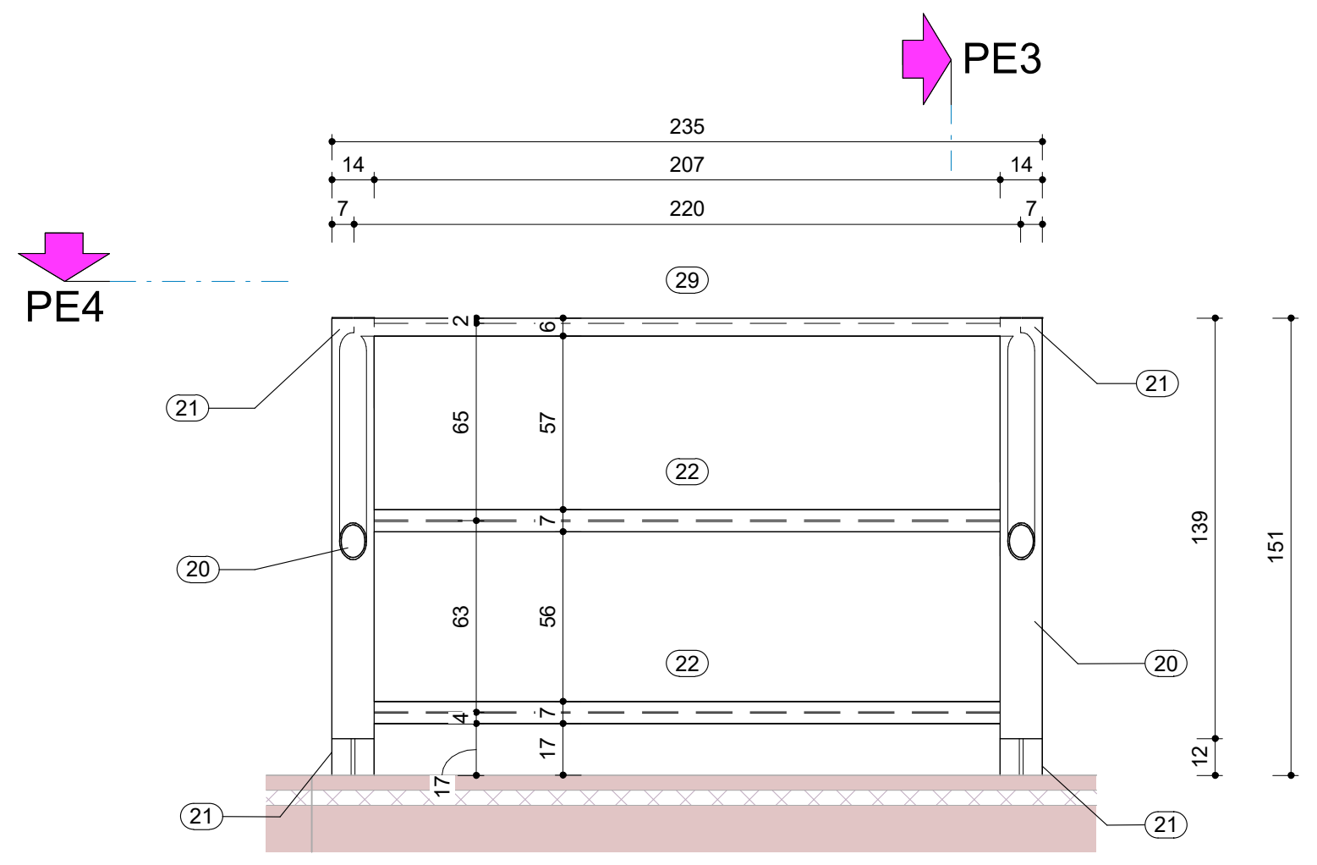


Sect. / Sez. - PE1 -
1 : 25

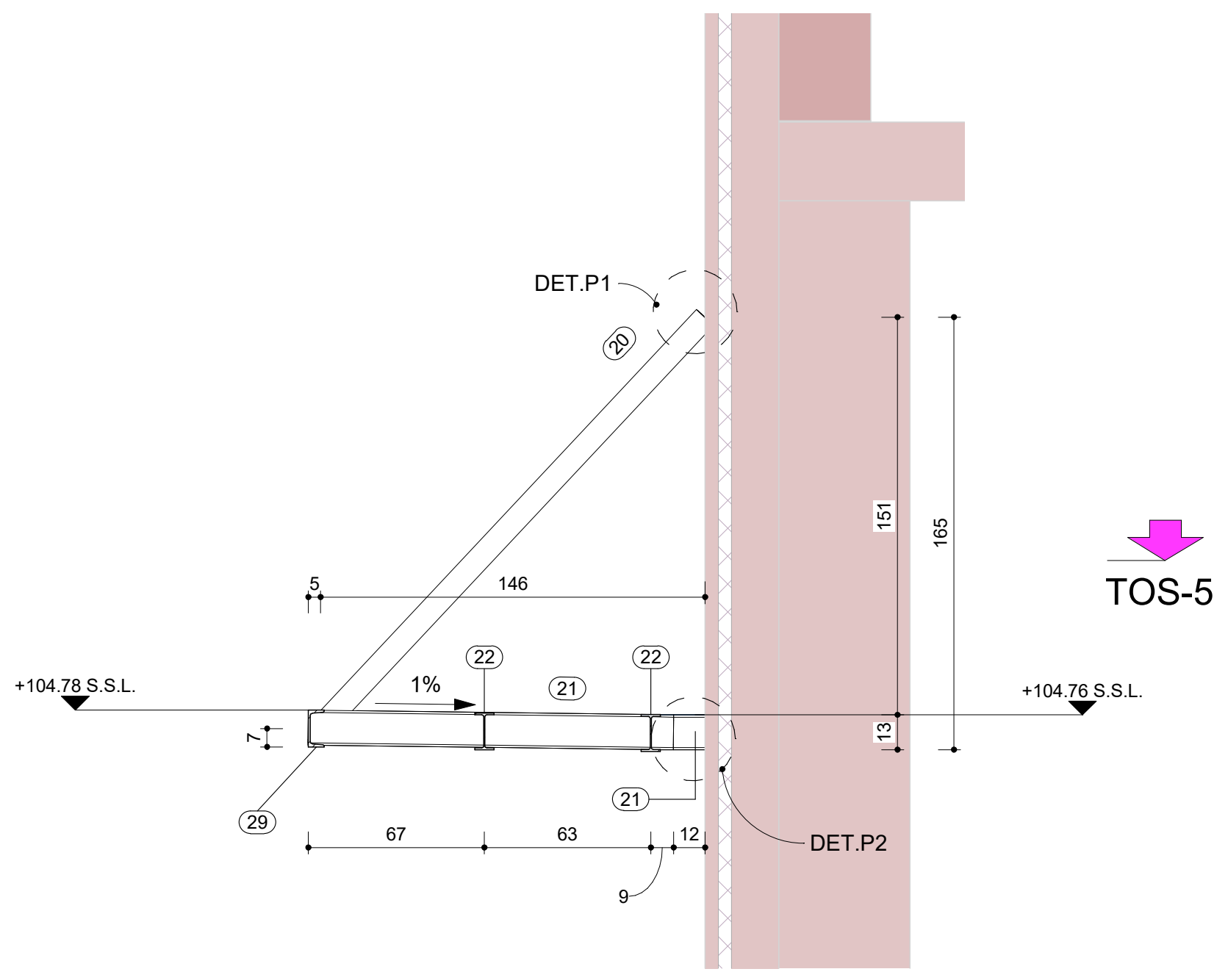


Sect. / Sez. - PE2 -
1 : 25

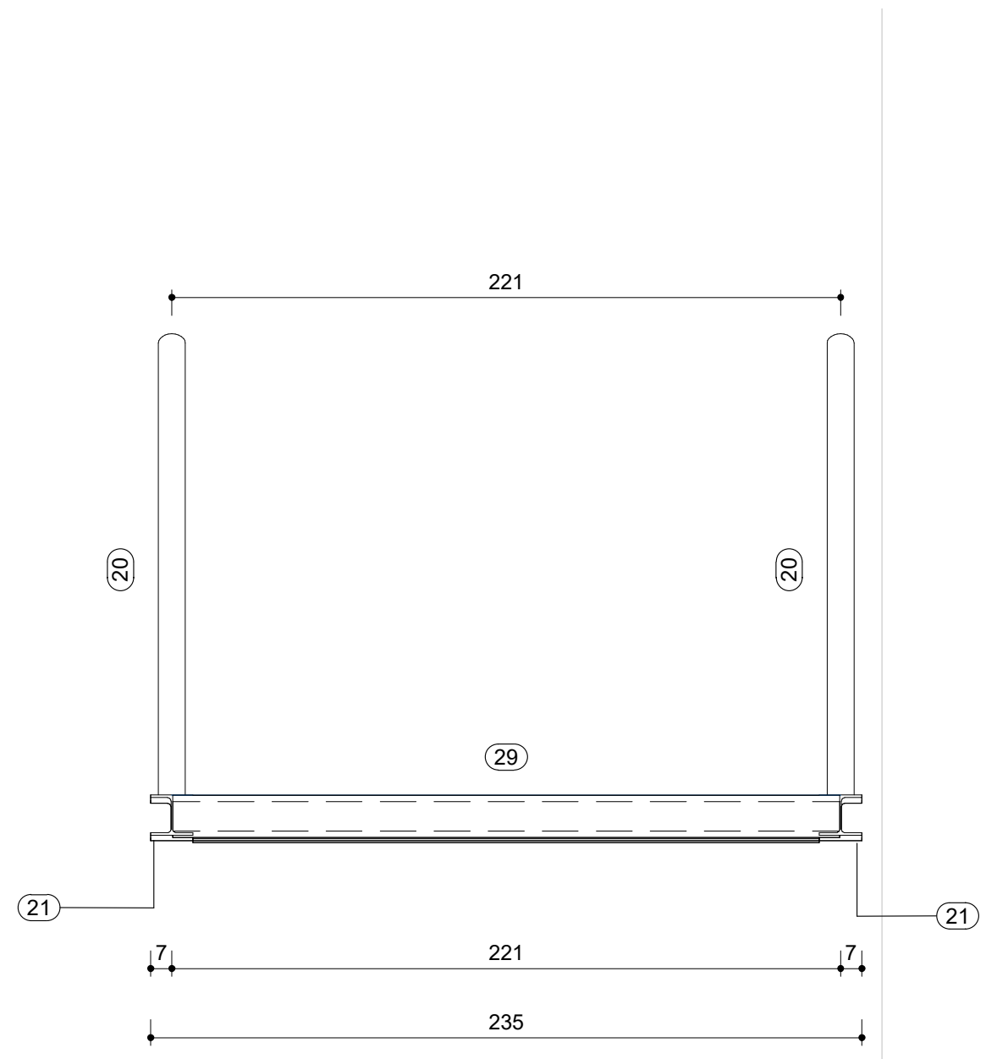
TYPE / TIPO 1



TOS-5 Canopy/ Pensilina - Top view / Vista dall'alto -
1 : 25

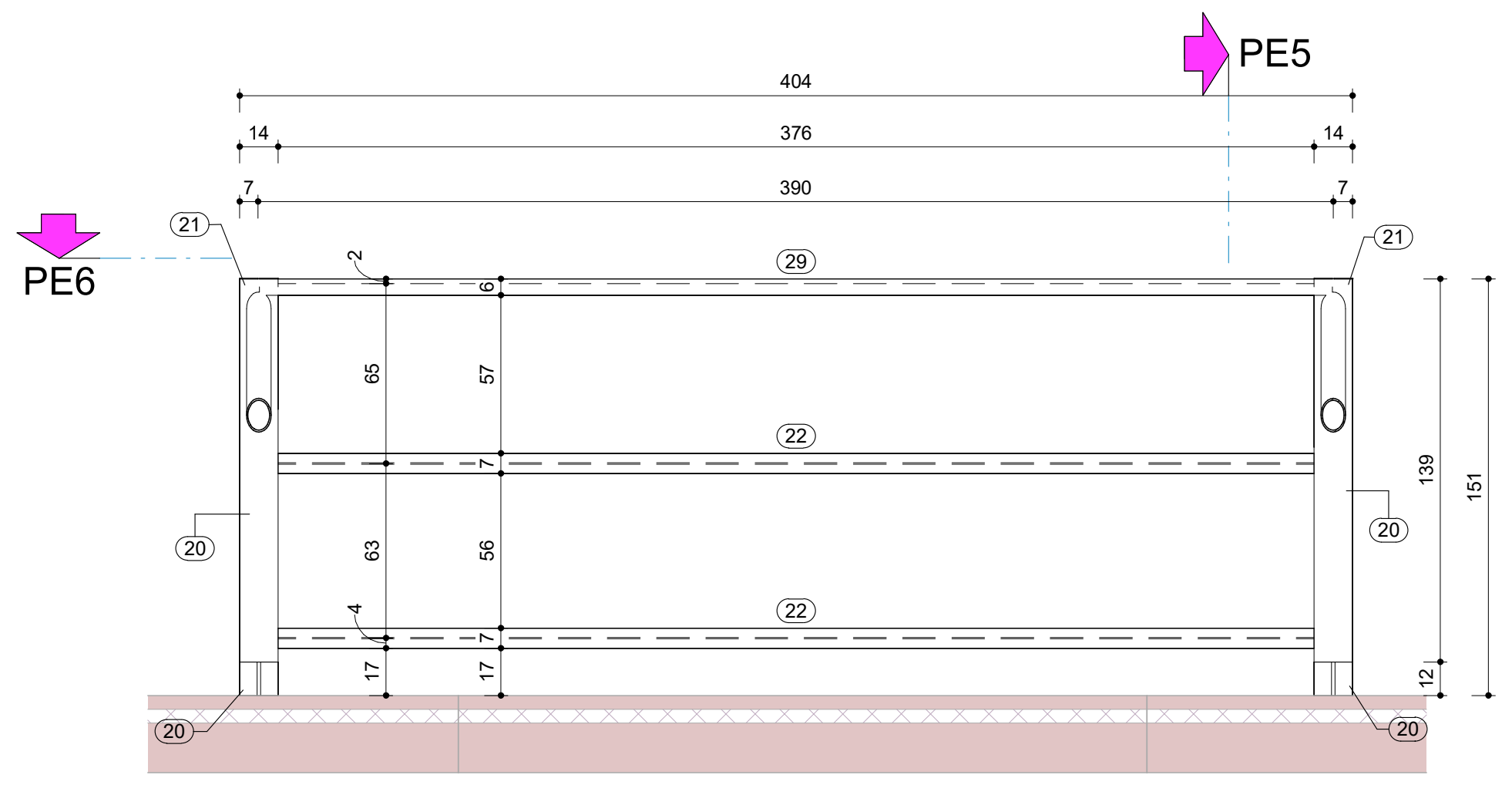


Sect. / Sez. - PE3 -
1 : 25

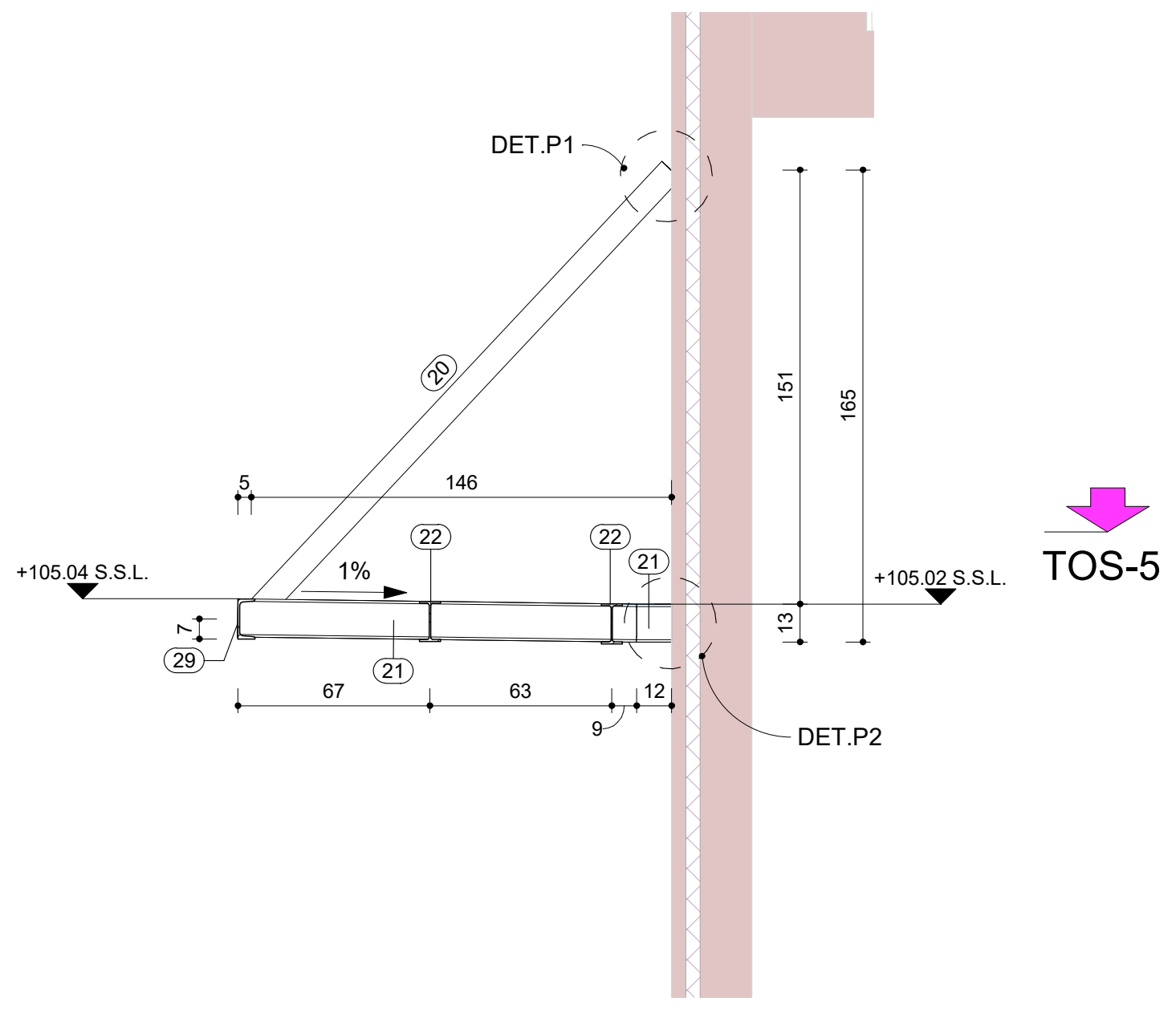


Sect. / Sez. - PE4 -
1 : 25

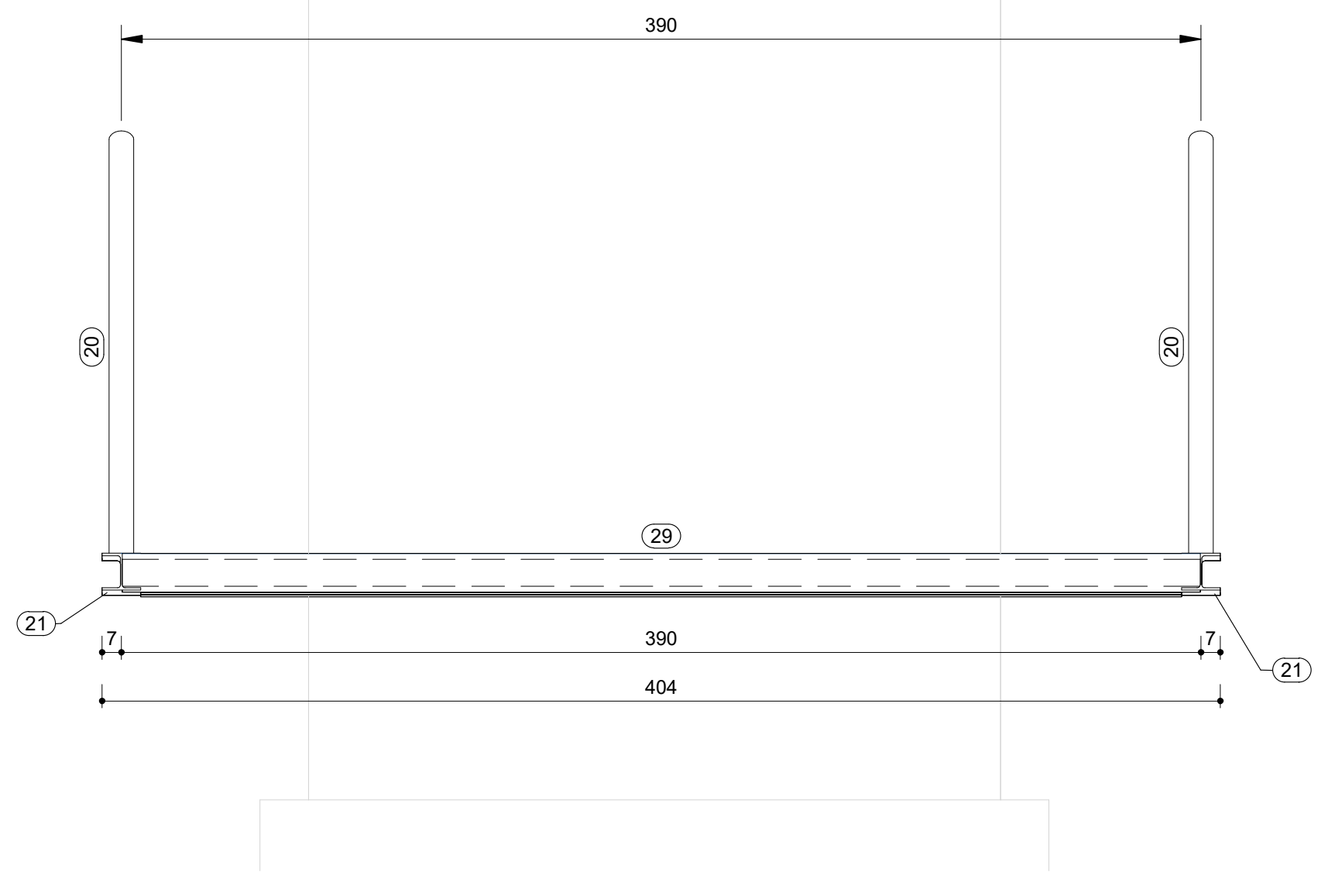
TYPE / TIPO 2



TOS-5 Canopy / Pensilina - Top view / Vista dall'alto -
1 : 25

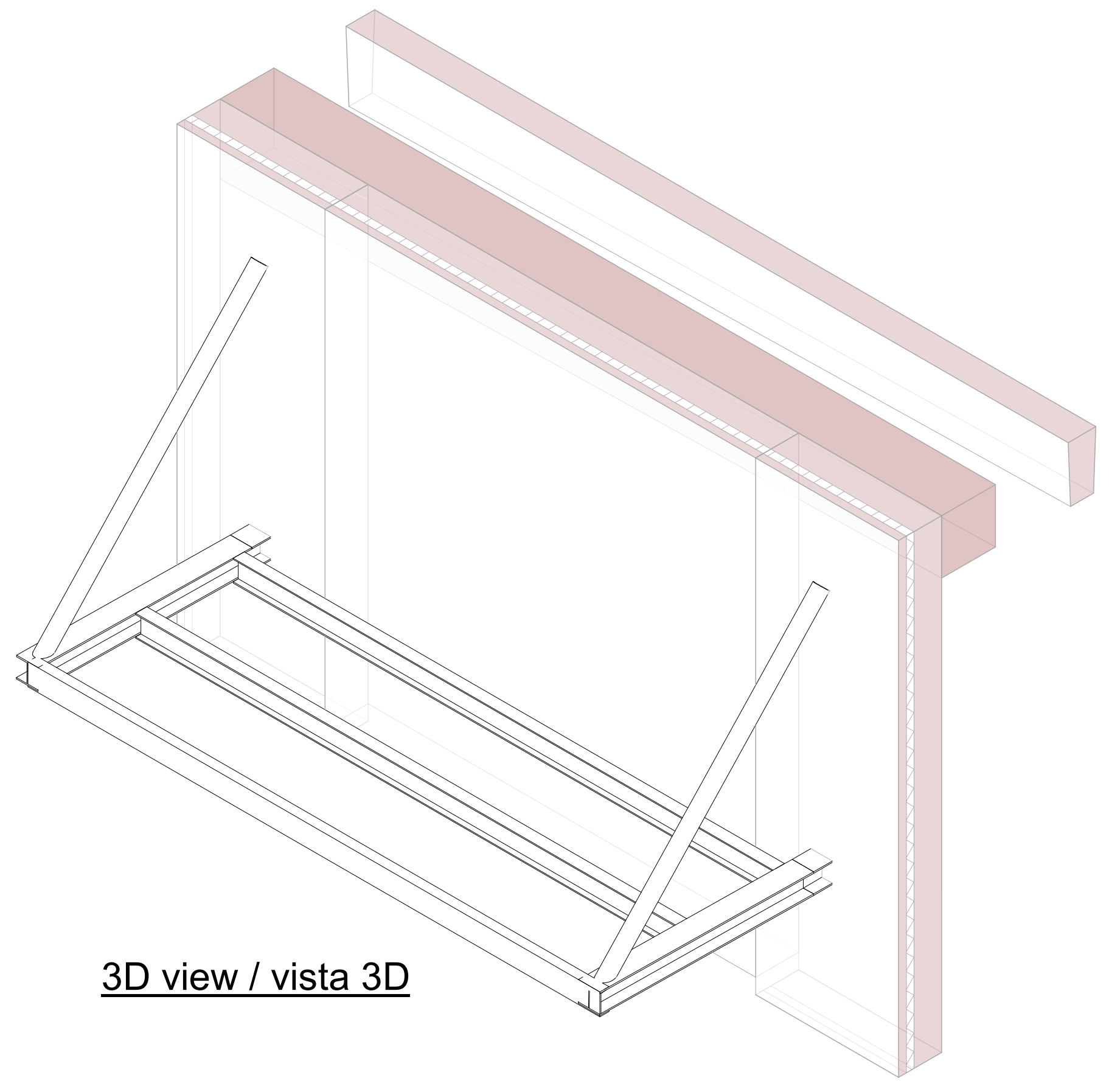


Sect. / Sez. - PE5 -
1 : 25



Sect. / Sez. - PE6 -
1 : 25

TYPE / TIPO 3



3D view / vista 3D

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

PROFILI	LAMIERE	TUBI
☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☒ S 275 H J0 ☐ S 355 H J0

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola ⊠, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☒ Zincatura a caldo UNI EN ISO 1461 : 2009 ☐ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☐ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☒ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898 ☒	S (*)	90	225	309	439	759	1110	1508
10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898 ☐	S (*)	113	281	387	549	949	1388	1885

VITE / DADO d / SPESSORI DA COLLEGARE / ROSETTA / 0,5 d
$S = k\ d\ F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
☐ FORO d + 1,0 mm per d ≤ 20 mm
d + 1,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☐ S 235 JR ☒ S 275 J0 ☐ S 355 J0	☒ S 275 H J0 ☐ S 355 H J0

WELDS Filled welds not specified must have a throat depth of "a" , ⊠ a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☒ Hot dip galvanized UNI EN ISO 1461 : 2009 ☐ Painted according to specifications

BOLT PROTECTION ☐ Rought ☐ Cold galvanized UNI EN ISO 4042 : 2003 ☒ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898 ☒	S (*)	90	225	309	439	759	1110	1508
10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898 ☐	S (*)	113	281	387	549	949	1388	1885

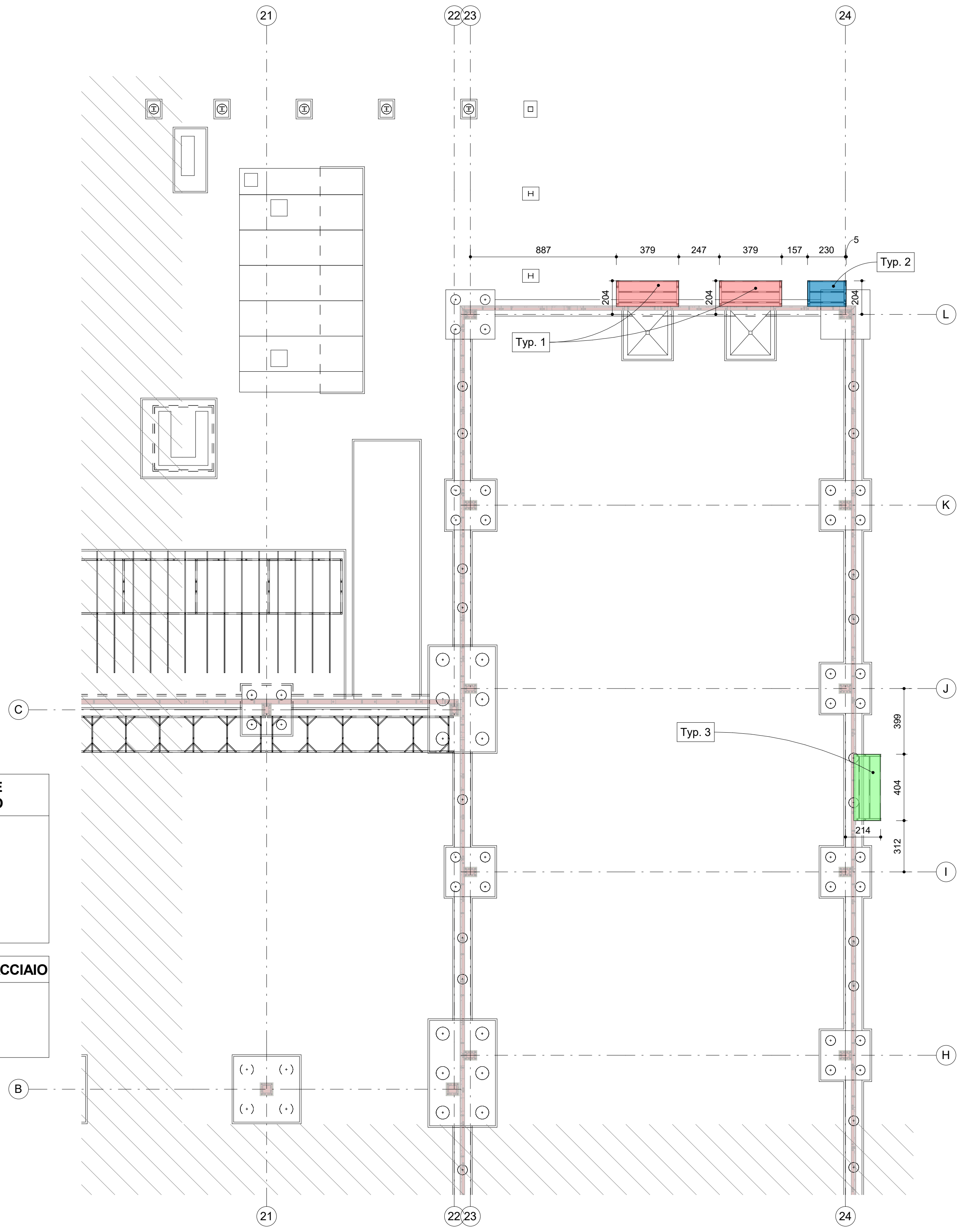
BOLT / NUT d / THICKNESS SUM / WASHER / 0,5 d
$S = k\ d\ F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
☐ FORO d + 1,0 mm for d ≤ 20 mm
d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

STEEL FRAMING / TRAVI E CONTROVENTI IN ACCIAIO

20	SFM.CHS88.9x5
21	SFM.HE140A
22	SFM.IPE140
23	SFM.L60x60x5
24	SFM.RHS100X60x5
25	SFM.RHS100X80x5
26	SFM.SHS60x60x5
28	SFM.SHS100x100x5
29	SFM.UPN140

STEEL COLUMNS / PILASTRI IN ACCIAIO

01	SCM.HE300A
02	SCM.SHS300x300x12.5
03	SCM.RB16
04	SCM.SHS100x100x5
05	SCM.SHS60x60x5



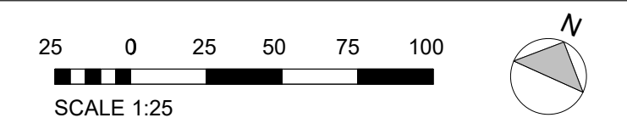
Keyplan - Top view / Vista dall'alto -
1 : 200

General Notes

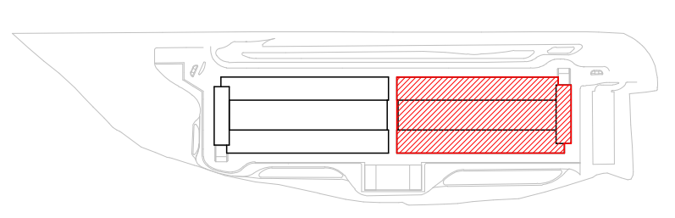
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



Key Plan



NOTES / NOTE:

1. For anchorage details to precast panels refer to drawing SF510 / Per i dettagli degli ancoraggi su pannelli prefabbricati fare riferimento alla tavola SF510

2. Secondary elements are to be considered hinged at end connections. Welds are not drawn, all welds are to be considered full fillet welds and double full fillet welds whenever possible / Gli elementi secondari sono considerati tra loro incernierati. Le connessioni tra gli elementi, sebbene non specificate, si intendono saldate con cordoni d'angolo su entrambi i lati dell'elemento da collegare, ove la geometria lo consenta.

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	FCT/FIBH/MEG	17/02/2023
P02	Issued for Compass Review	FCT/FIBH/MEG	01/02/2023
P01	Issued for QA/QC	FCT/FIBH/MEG	27/01/2023

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
Canopies
Plans and Sections

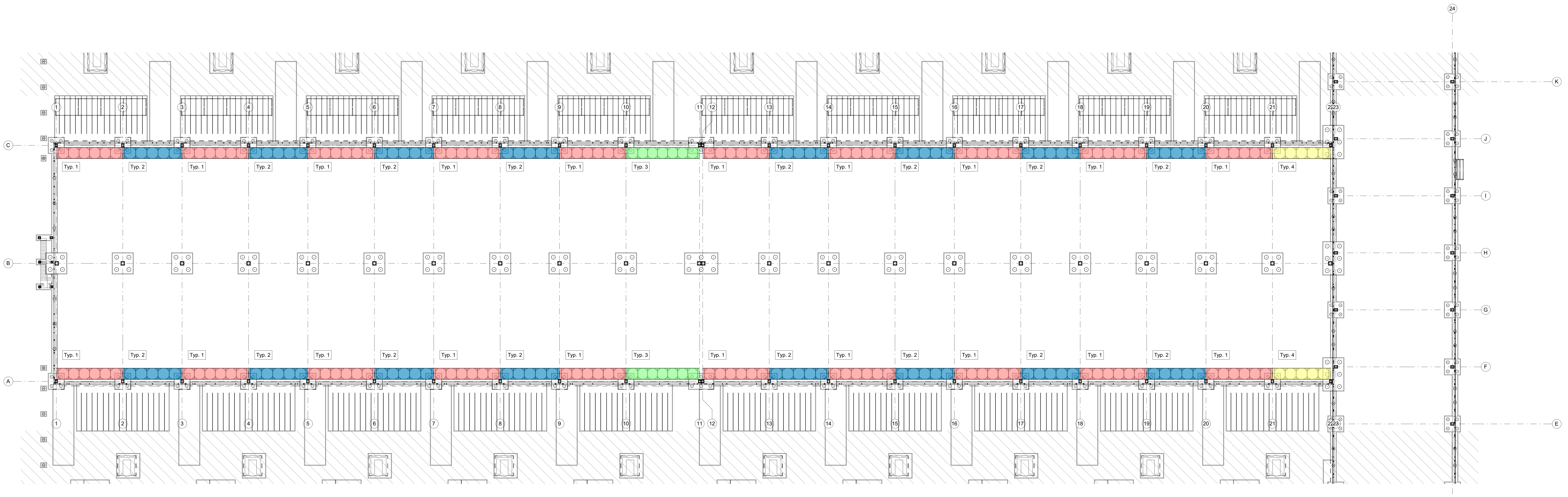
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

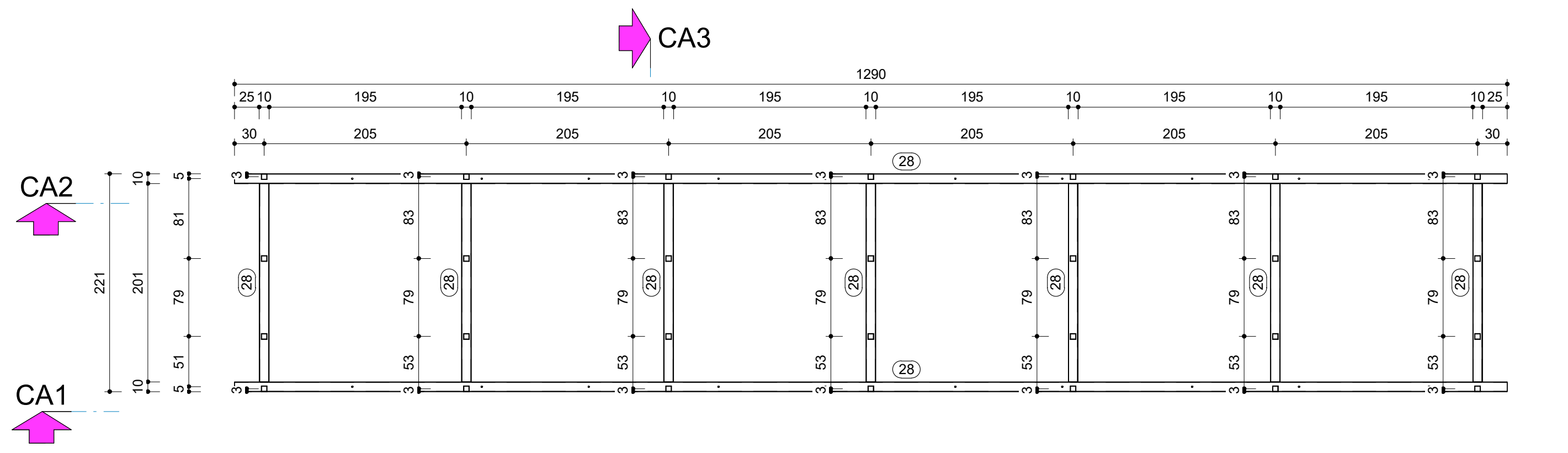
Project Number	Scale @ A0	Revision
P10424	**1:25**	**P03**

Drawing Number
SF110

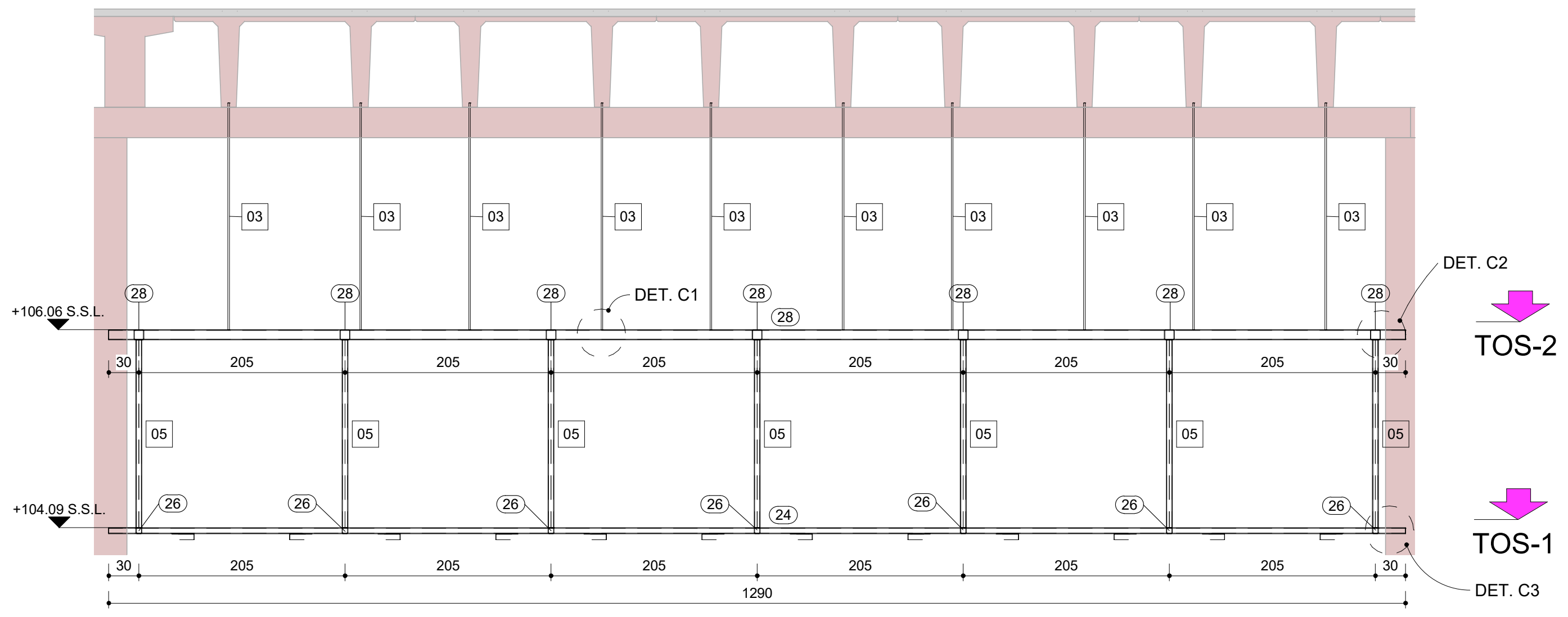
A0 - Do not scale



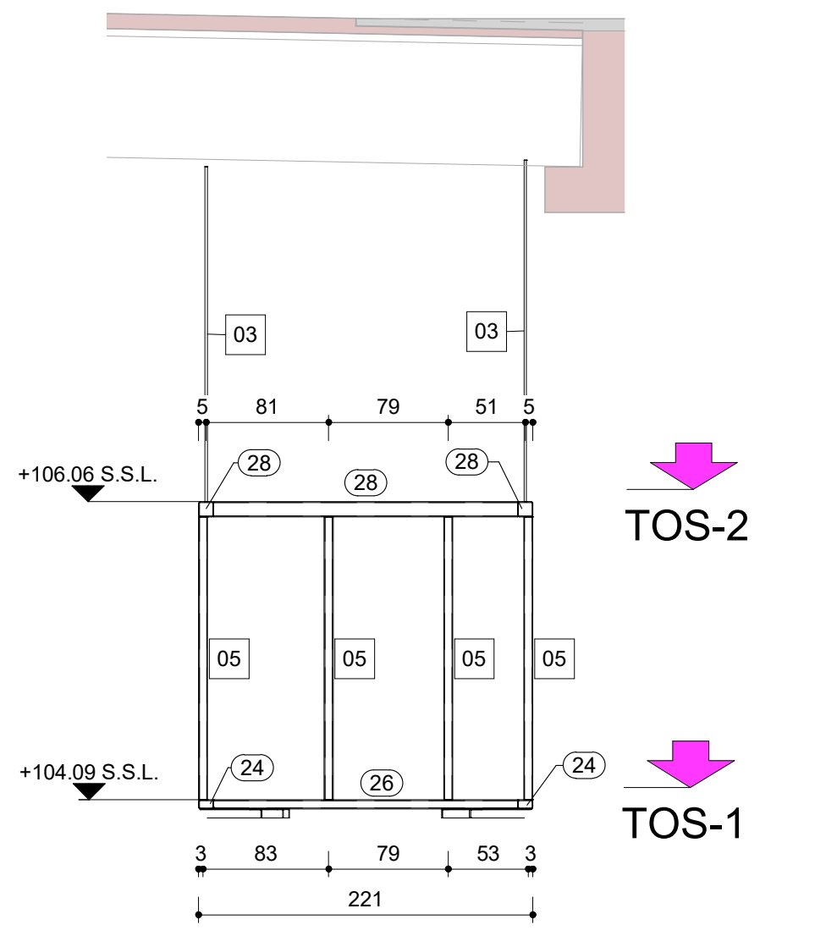
Keyplan - Top view / Vista dall'alto -
1 : 300



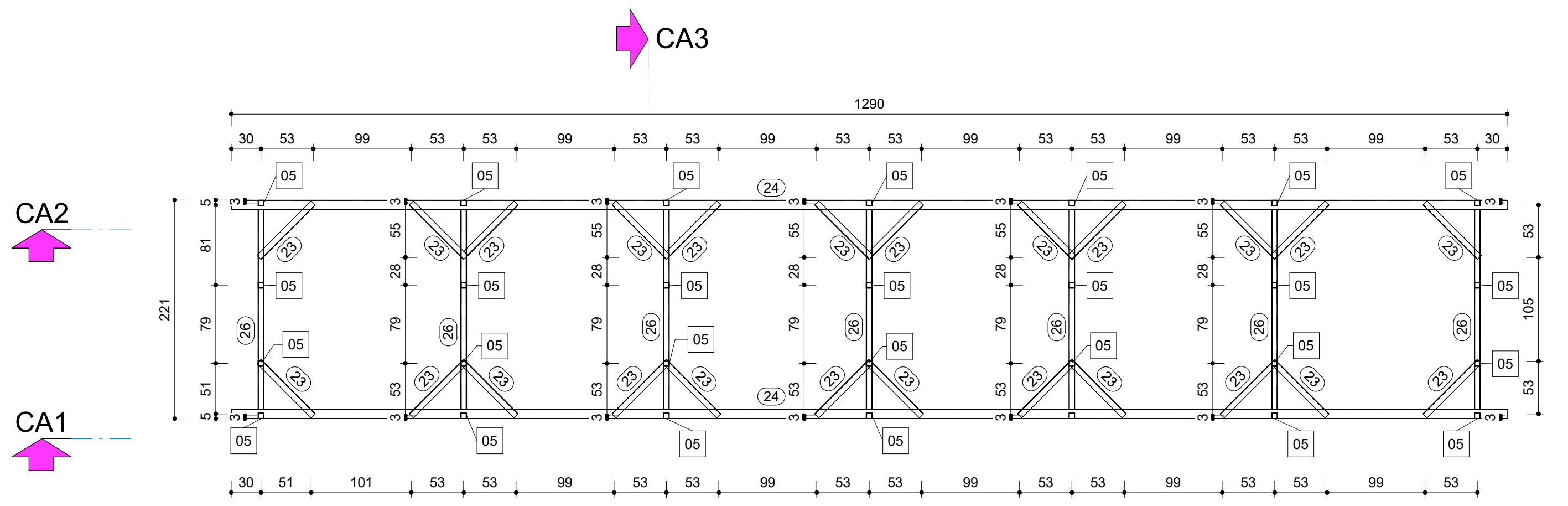
TOS-2 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50



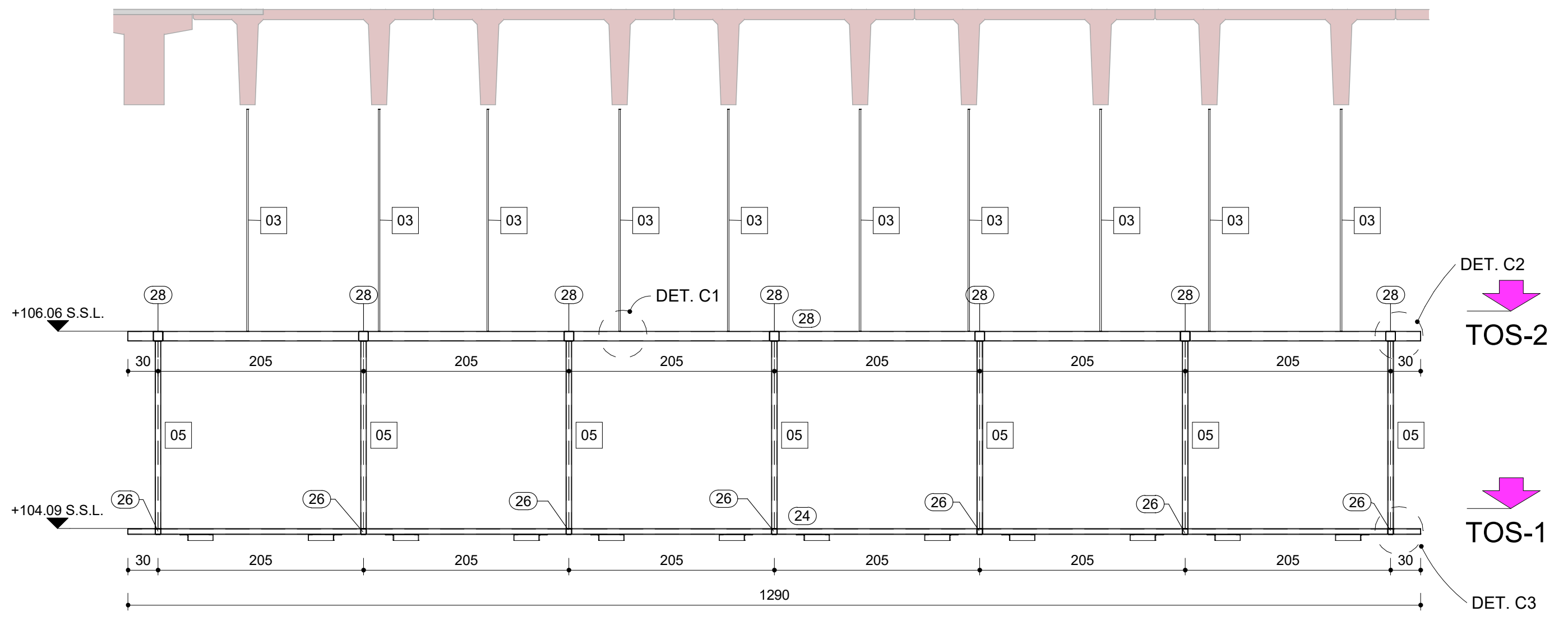
Sect. / Sez. - CA1 -
1 : 50



Sect. / Sez. - CA3 -
1 : 50



TOS-1 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50



Sect. / Sez. - CA2 -
1 : 50

TYPE / TIPO 1

Note well / Nota bene

Design is indicative and to be refined using an approved support system frame and suspension from the structural grid supporting the suspended ceiling system / Il progetto è indicativo e dovrà essere perfezionato e approvato utilizzando un telaio di supporto appeso alla griglia strutturale che sostiene il sistema di controsoffitti.

STEEL FRAMING / TRAVI E CONTROVENTI IN ACCIAIO

20	SFM.CHS88.9x5
21	SFM.HE140A
22	SFM.IPE140
23	SFM.L60x60x5
24	SFM.RHS100X60x5
25	SFM.RHS100X80x5
26	SFM.SHS60x60x5
28	SFM.SHS100x100x5
29	SFM.UPN140

STEEL COLUMNS / PILASTRI IN ACCIAIO

01	SCM.HE300A
02	SCM.SHS300x300x12.5
03	SCM.RB16
04	SCM.SHS100x100x5
05	SCM.SHS60x60x5

🟥	MEP Distribution structural frame / Struttura di distribuzione typ.1
🟦	MEP Distribution structural frame / Struttura di distribuzione typ.2
🟩	MEP Distribution structural frame / Struttura di distribuzione typ.3
🟨	MEP Distribution structural frame / Struttura di distribuzione typ.4

Ga Plans Legend / Legenda Carpenteria

▬	Cast in place concrete section element / Sezione elementi gettati in opera
▭	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

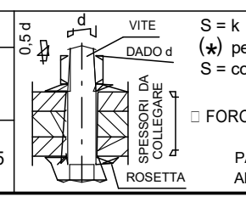
PROFILI	LAMIERE	TUBI
☐ S 235 JR	☐ S 235 JR	
☒ S 275 JR	☒ S 275 JR	☒ S 275 H JR
☐ S 355 JO	☐ S 355 JO	☐ S 355 H JO

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola ⊠a, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☐ Zincatura a caldo UNI EN ISO 1461 : 2009 ☒ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☒ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☐ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885



S = k d $F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
☐ FORO d + 1,0 mm per d ≤ 20 mm
d + 1,5 mm per d ≥ 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

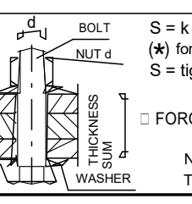
ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR	☐ S 235 JR	
☒ S 275 JR	☒ S 275 JR	☒ S 275 H JR
☐ S 355 JO	☐ S 355 JO	☐ S 355 H JO

WELDS Filled welds not specified must have a throat depth of "a", ⊠a a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☐ Hot dip galvanized UNI EN ISO 1461 : 2009 ☒ Painted according to specifications

BOLT PROTECTION ☐ Rought ☒ Cold galvanized UNI EN ISO 4042 : 2003 ☐ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885



S = k d $F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
☐ FORO d + 1,0 mm for d ≤ 20 mm
d + 1,5 mm for d ≥ 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

NOTE/NOTA:
For painting according to specifications refer to CHAP. D.8.3 + CHAP. D.8.7
Per la vernicatura secondo le specifiche fare riferimento al CAP. D.8.3 + CAP. D.8.7

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
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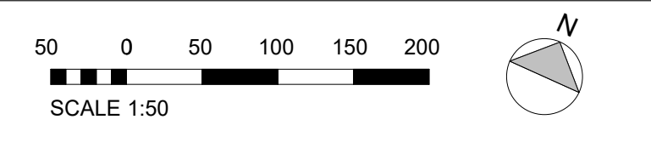
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

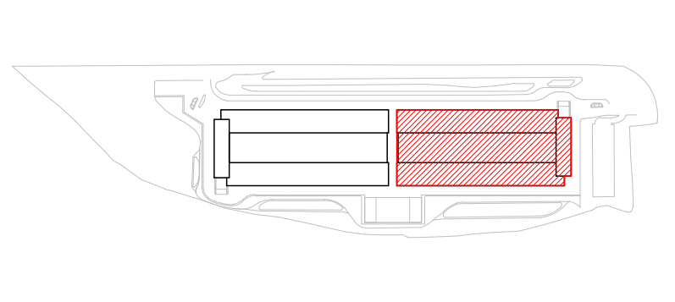
Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



SCALE 1:50

Key Plan



NOTES / NOTE:

1. For typical details C1 - C2 - C3 refer to drawing SF510 / Per i dettagli tipici C1 - C2 - C3 fare riferimento alla tavola SF510

2. Elements 03, 05 and 23 are to be considered hinged at end connections. The rest of the elements are to be considered as fixed at end connections / Gli elementi 03, 05 e 23 sono considerati incernierati alle estremità. Tutti gli altri elementi sono invece considerati tra loro incastrati.

3. Welds are not drawn, all welds are to be considered full fillet welds and double full fillet welds whenever possible / Le connessioni tra gli elementi, sebbene non specificate, si intendono saldate con cordoni d'angolo su entrambi i lati dell'elemento da collegare, ove la geometria lo consenta.

4. Threaded rod "03" to be defined by the GC, compatible with the inserts in the double tees and connection detail DET.C1. / Barra filettata "03" a cura del GC, compatibile con gli inserti nei tegoli a doppio T e il dettaglio DET.C1.

Rev	Details	By / Chkd / App	Date
P04	Issued for Construction	FCT/FIBH/MEG	22/02/2023
P03	Issued for Construction	FCT/FIBH/MEG	17/02/2023
P02	Issued for Compass Review	FCT/FIBH/MEG	01/02/2023
P01	Issued for QA/QC	FCT/FIBH/MEG	27/01/2023

Client
COMPASS datacenters

Architectural / Civil / Structural
MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
MEP Distribution Structural Frame
Plans and Sections
Keyplan and Type 1 Frame

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

Status Code
S5

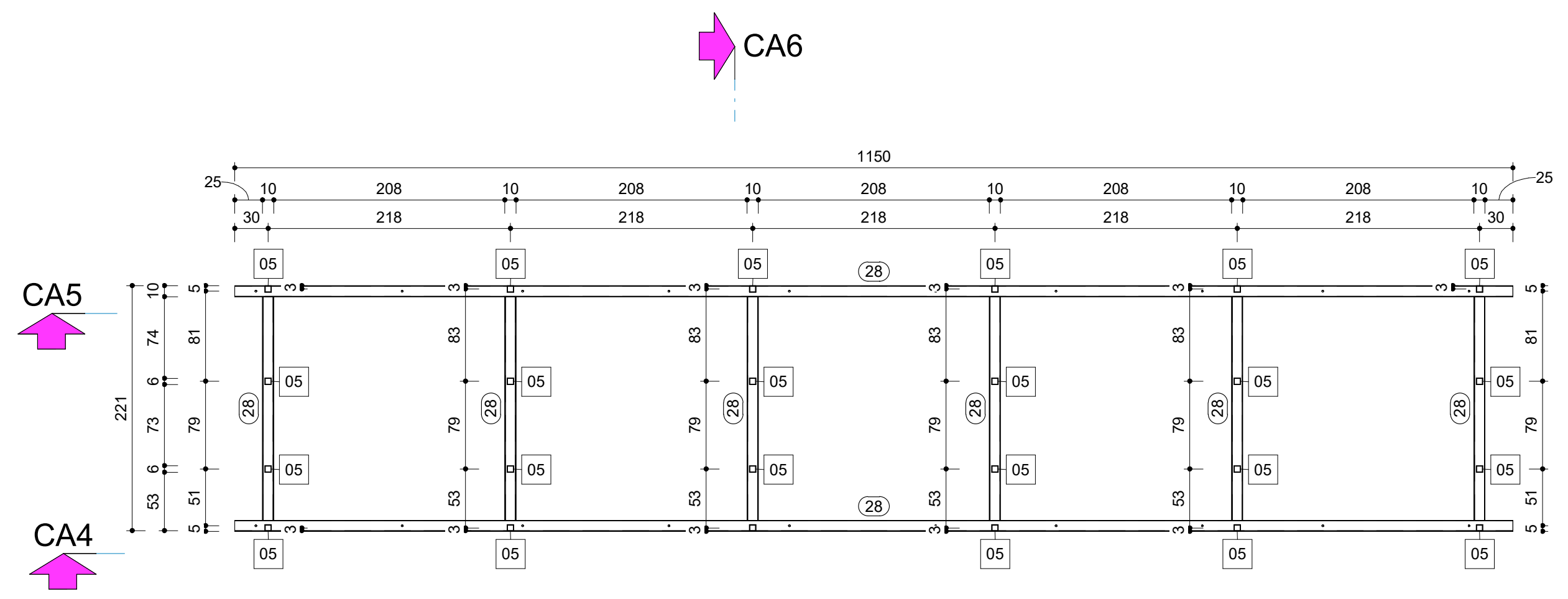
Project Number
P10424

Scale @ A0
1:50

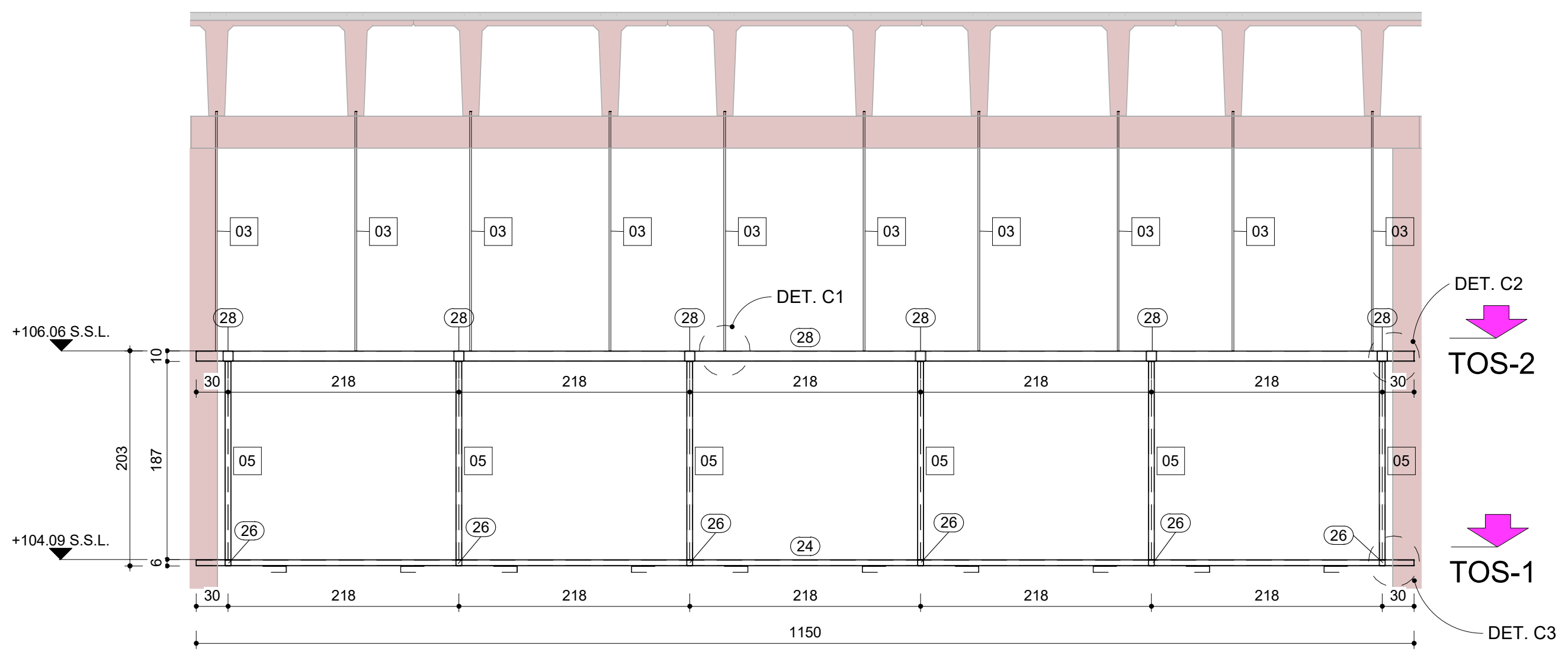
Revision
P04

Drawing Number
SF111

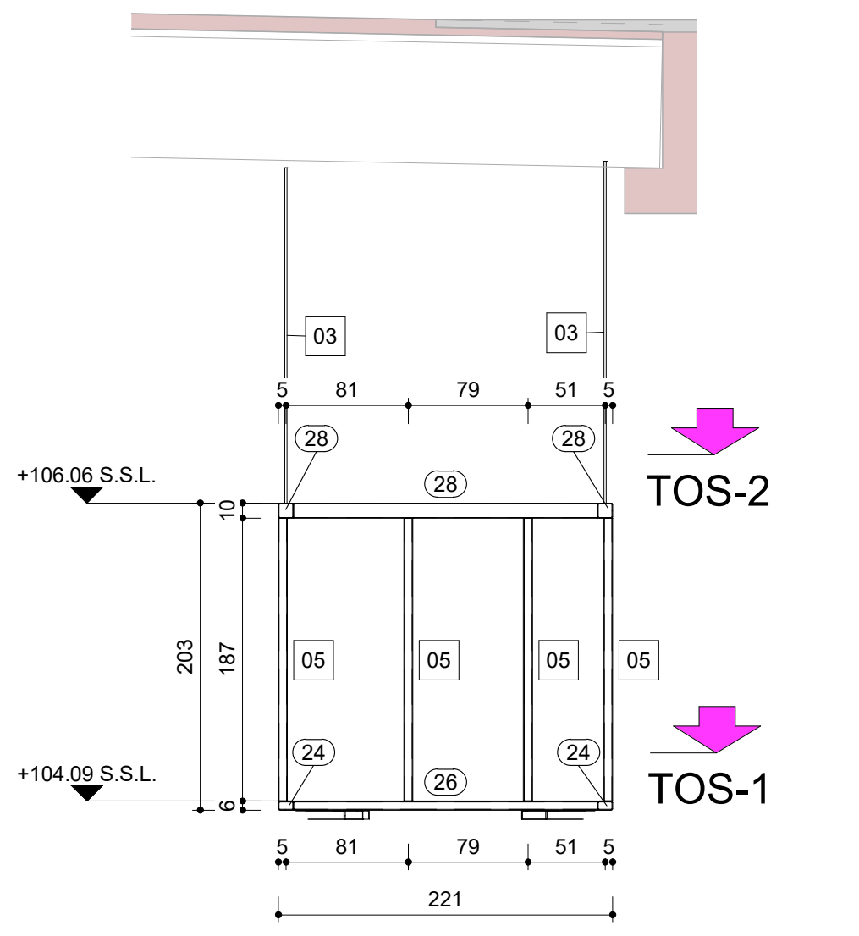
A0 - Do not scale



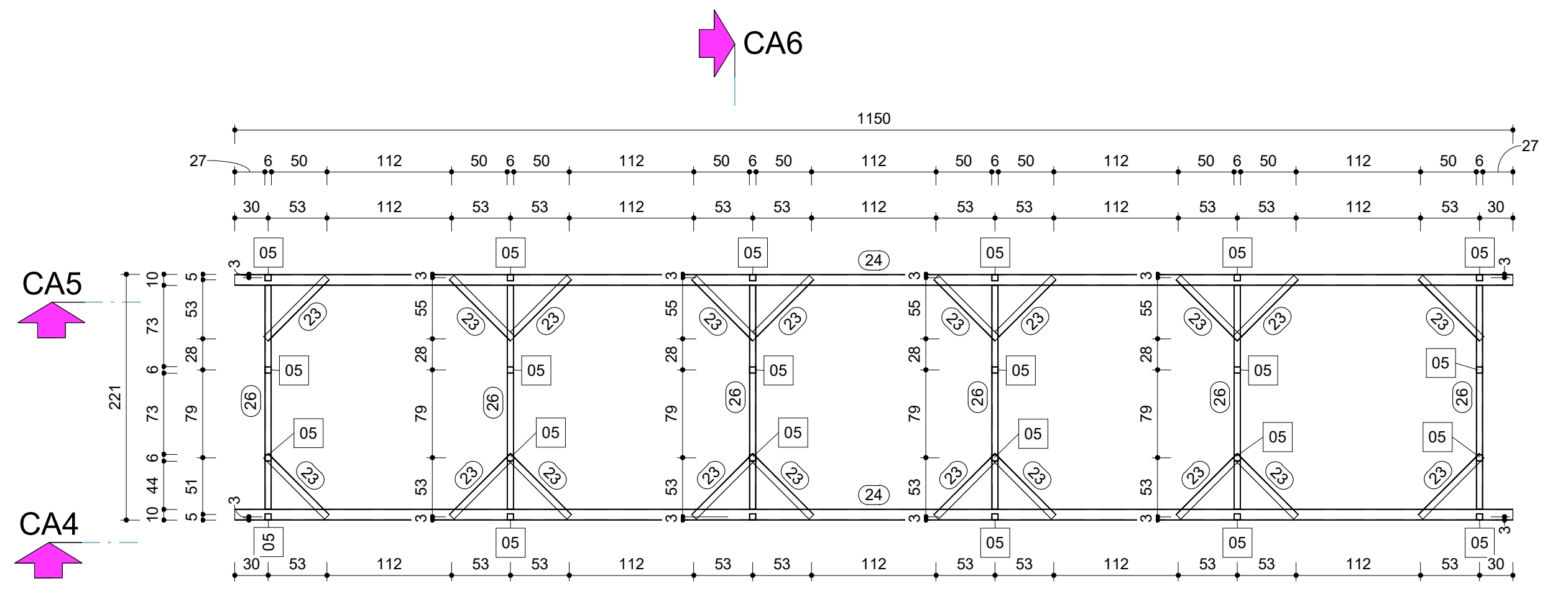
TOS-2 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50



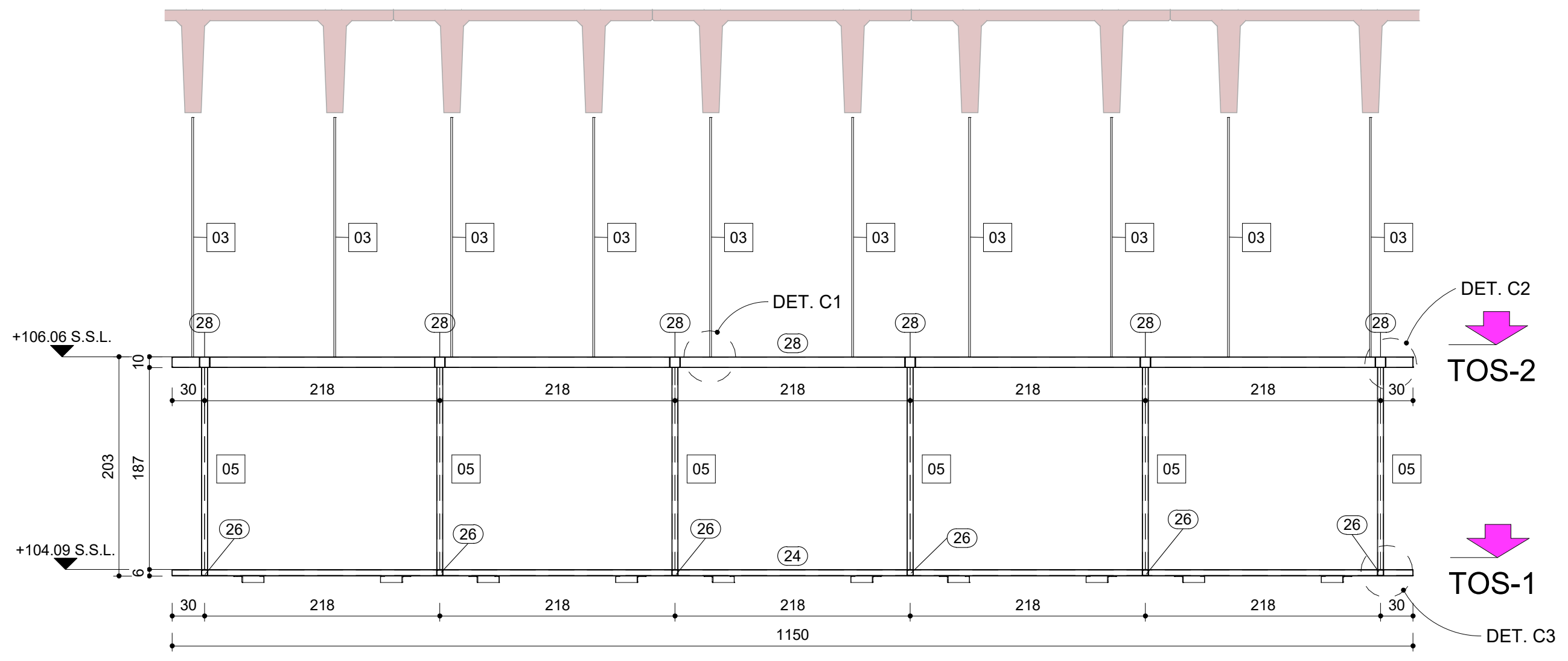
Sect. / Sez. - CA4 -
1 : 50



Sect. / Sez. - CA6 -
1 : 50

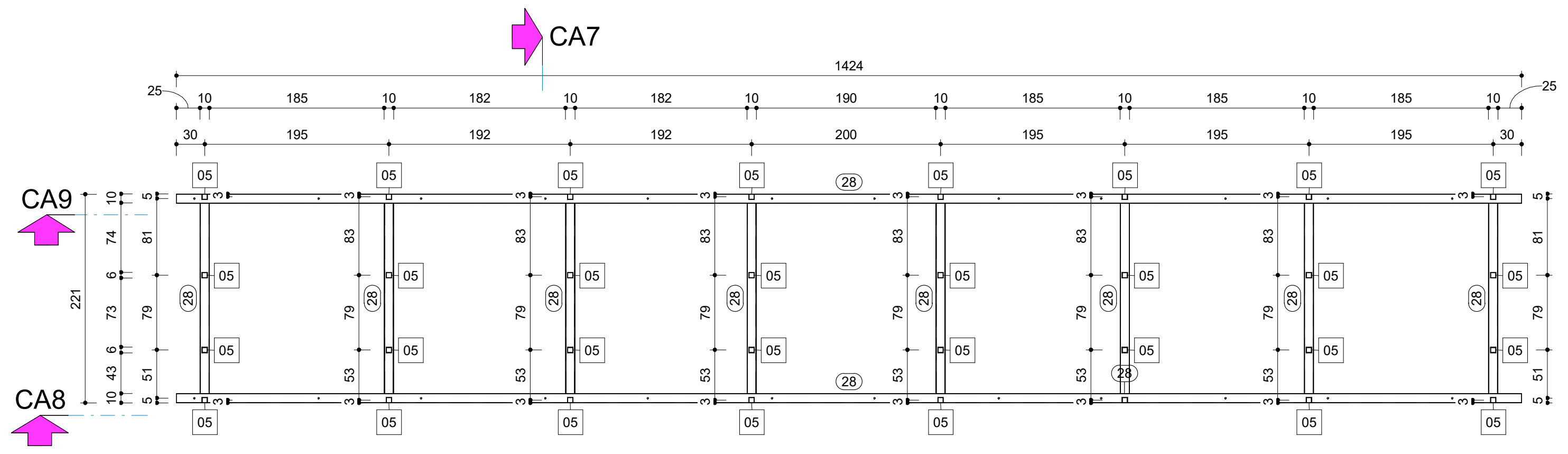


TOS-1 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50

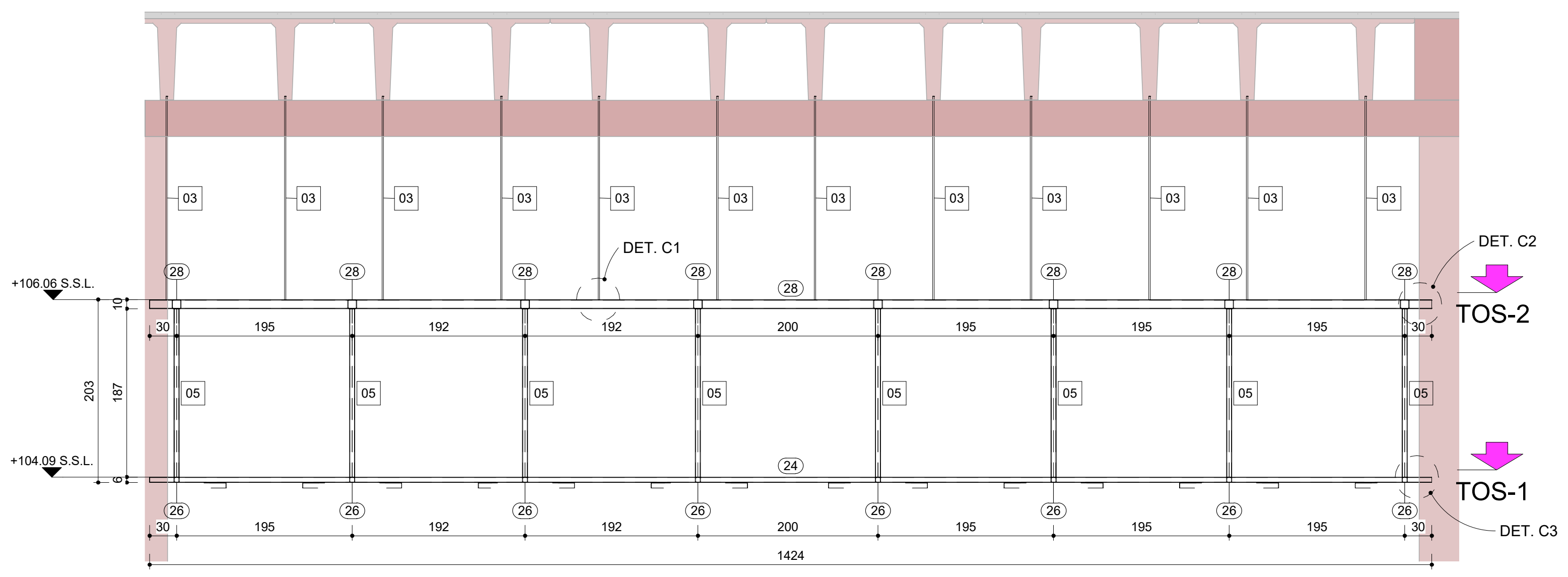


Sect. / Sez. - CA5 -
1 : 50

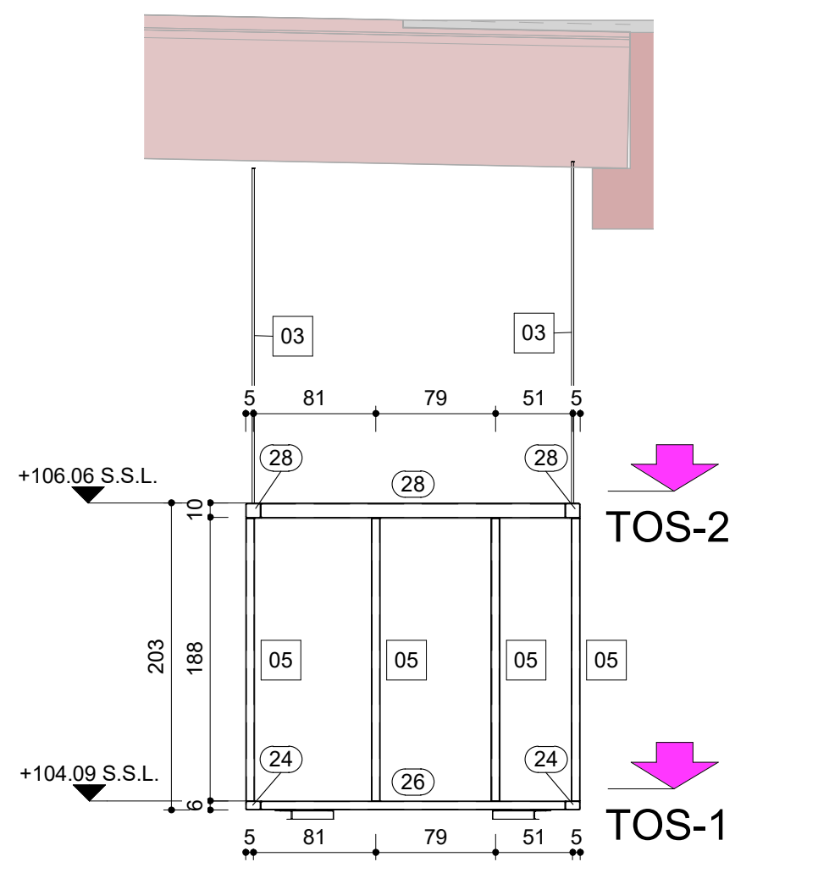
TYPE / TIPO 2



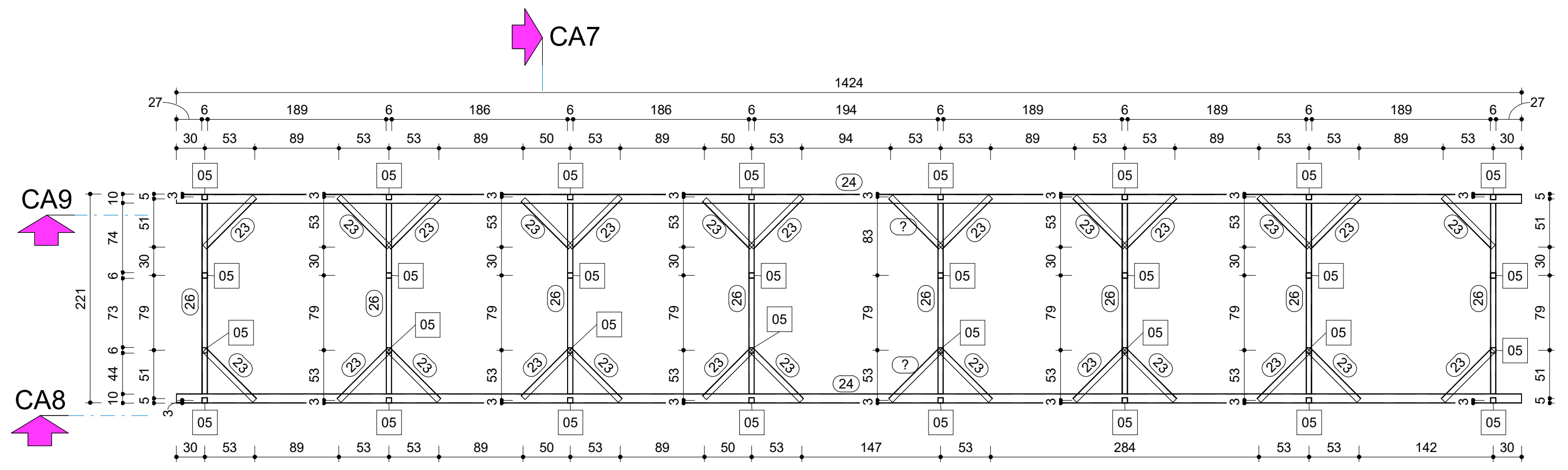
TOS-2 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50



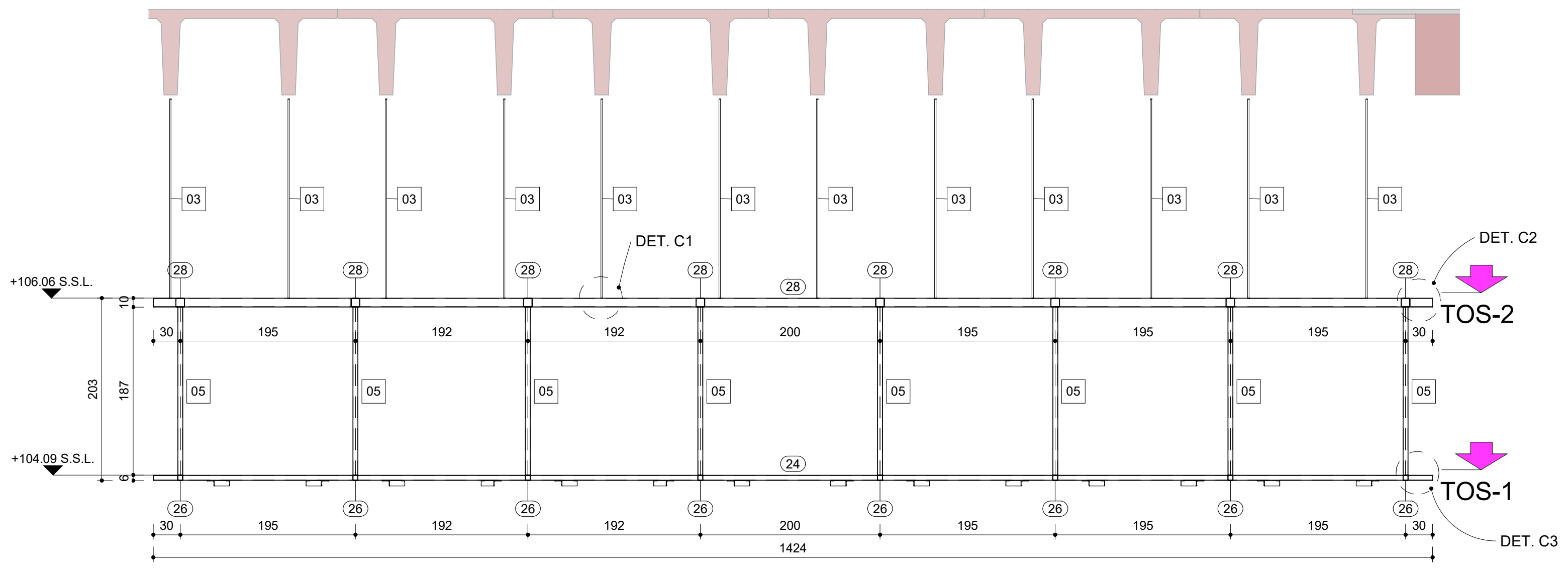
Sect. / Sez. - CA8 -
1 : 50



Sect. / Sez. - CA7 -
1 : 50



TOS-1 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50



Sect. / Sez. - CA9 -
1 : 50

TYPE / TIPO 3

Note well / Nota bene

Design is indicative and to be refined using an approved support system frame and suspension from the structural grid supporting the suspended ceiling system / Il progetto è indicativo e dovrà essere perfezionato e approvato utilizzando un telaio di supporto appeso alla griglia strutturale che sostiene il sistema di controsoffitti.

STEEL FRAMING / TRAVI E CONTROVENTI IN ACCIAIO

20	SFM.CHS88.9x5
21	SFM.HE140A
22	SFM.IPE140
23	SFM.L60x60x5
24	SFM.RHS100X60x5
25	SFM.RHS100X80x5
26	SFM.SHS60x60x5
28	SFM.SHS100x100x5
29	SFM.UPN140

STEEL COLUMNS / PILASTRI IN ACCIAIO

01	SCM.HE300A
02	SCM.SHS300x300x12.5
03	SCM.RB16
04	SCM.SHS100x100x5
05	SCM.SHS60x60x5

Ga Plans Legend / Legenda Carpenteria

▩	Cast in place concrete section element / Sezione elementi gettati in opera
▨	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
▼ + x.xx	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

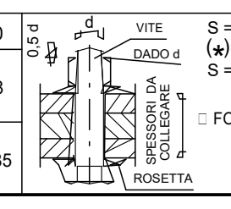
PROFILI	LAMIERE	TUBI
☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☒ S 275 H JR ☐ S 355 H JO

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☐ Zincatura a caldo UNI EN ISO 1461 : 2009 ☒ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☒ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☐ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885



S = k d $F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
FORO d + 1,0 mm per d ≤ 20 mm
d + 1,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

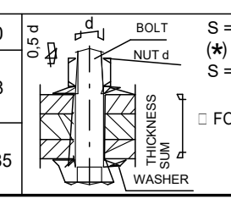
ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☒ S 275 H JR ☐ S 355 H JO

WELDS Filled welds not specified must have a throat depth of "a", a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☐ Hot dip galvanized UNI EN ISO 1461 : 2009 ☒ Painted according to specifications

BOLT PROTECTION ☐ Rought ☒ Cold galvanized UNI EN ISO 4042 : 2003 ☐ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885



S = k d $F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
FORO d + 1,0 mm for d ≤ 20 mm
d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

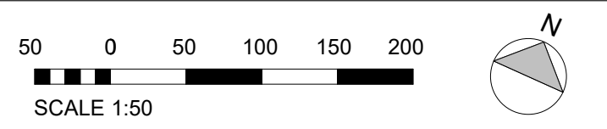
NOTE/NOTA:
For painting according to specifications refer to CHAP. D.8.3 + CHAP. D.8.7
Per la vernicatura secondo le specifiche fare riferimento al CAP. D.8.3 + CAP. D.8.7

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

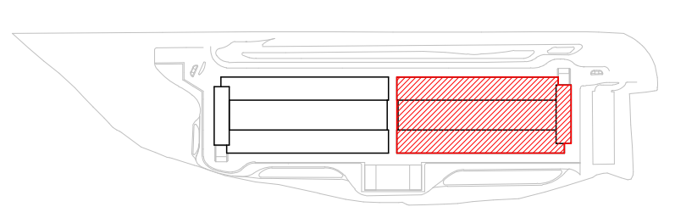
Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



SCALE 1:50

Key Plan



NOTES / NOTE:

1. For typical details C1 - C2 - C3 refer to drawing SF510 / Per i dettagli tipici C1 - C2 - C3 fare riferimento alla tavola SF510

2. Elements 03, 05 and 23 are to be considered hinged at end connections. The rest of the elements are to be considered as fixed at end connections / Gli elementi 03, 05 e 23 sono considerati incernierati alle estremità. Tutti gli altri elementi sono invece considerati tra loro incastrati.

3. Welds are not drawn, all welds are to be considered full fillet welds and double full fillet welds whenever possible / Le connessioni tra gli elementi, sebbene non specificate, si intendono saldate con cordoni d'angolo su entrambi i lati dell'elemento da collegare, ove la geometria lo consenta.

4. Threaded rod "03" to be defined by the GC, compatible with the inserts in the double tees and connection detail DET.C1. / Barra filettata "03" a cura del GC, compatibile con gli inserti nei tegoli a doppio T e il dettaglio DET.C1.

Rev	Details	By / Chkd / App	Date
P04	Issued for Construction	FCT/FIBH/MEG	22/02/2023
P03	Issued for Construction	FCT/FIBH/MEG	17/02/2023
P02	Issued for Compass Review	FCT/FIBH/MEG	01/02/2023
P01	Issued for QA/QC	FCT/FIBH/MEG	27/01/2023

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
MEP Distribution Structural Frame
Plans and Sections
Type 2 and Type 3 Frames

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

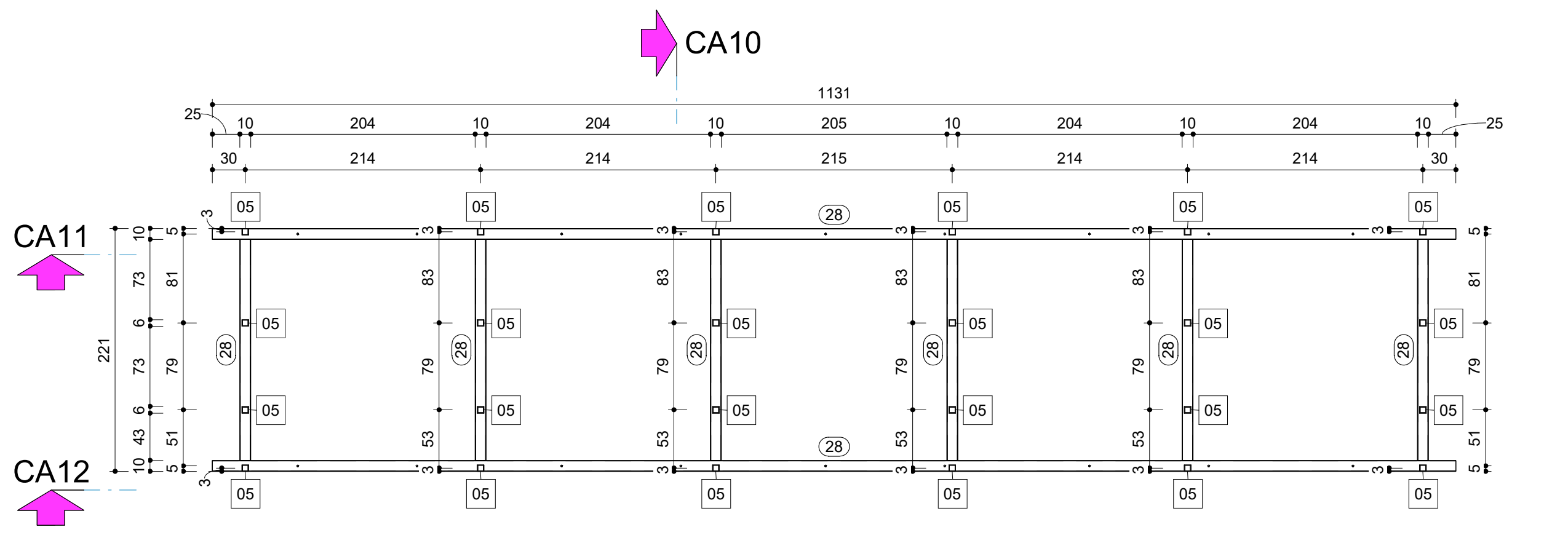
Status Code
S5

Project Number
P10424

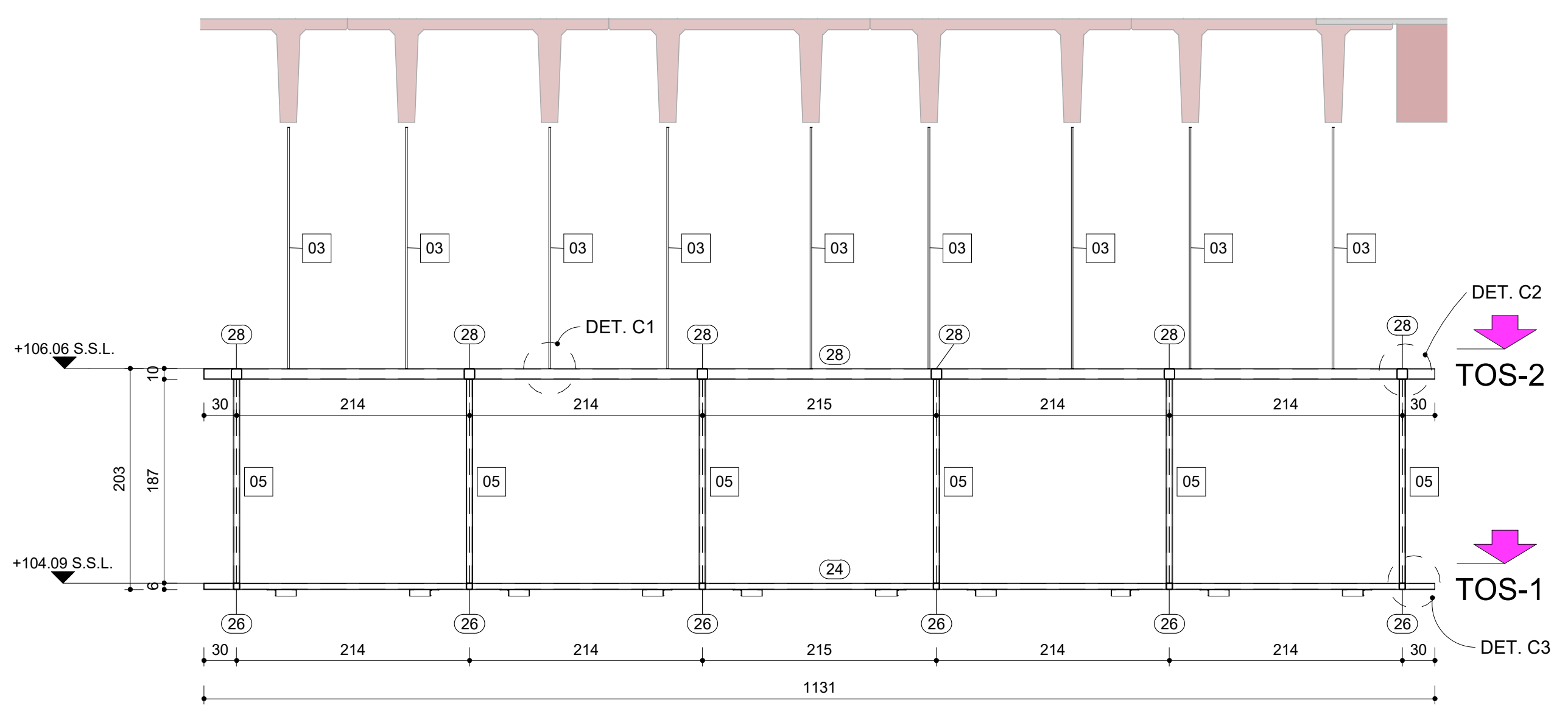
Scale @ A0
1:50

Revision
P04

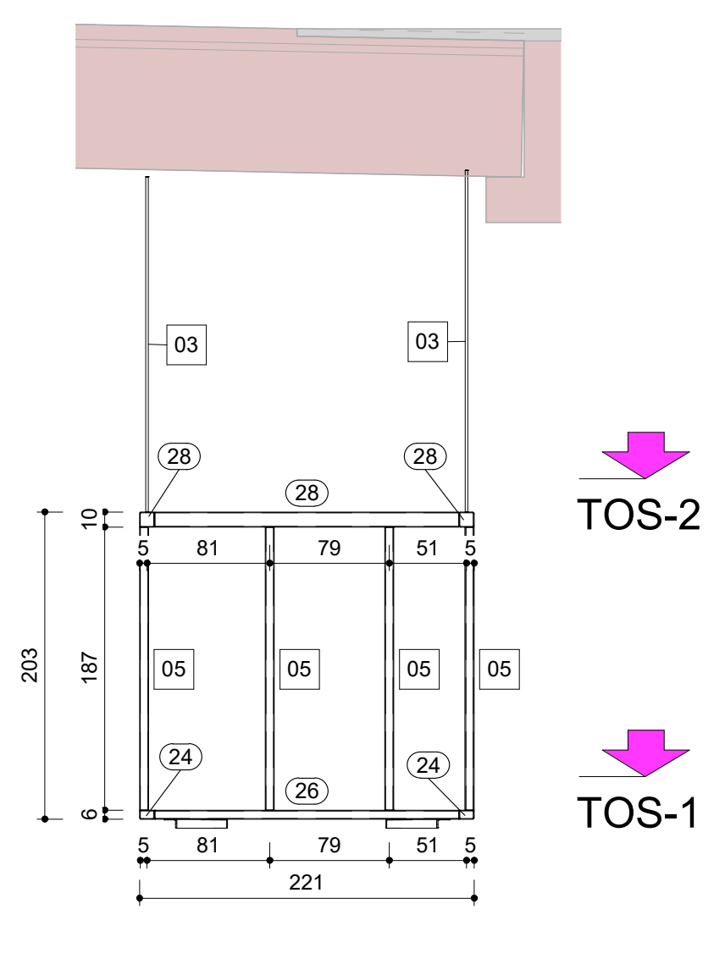
Drawing Number
SF112



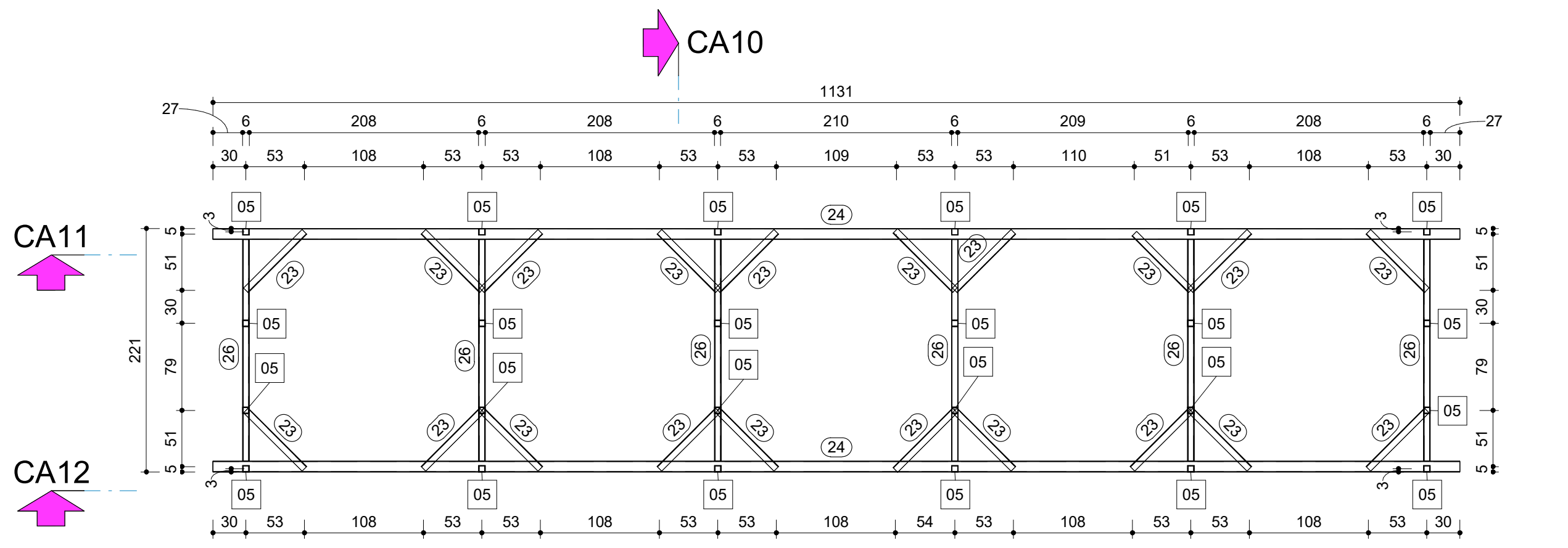
TOS-2 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50



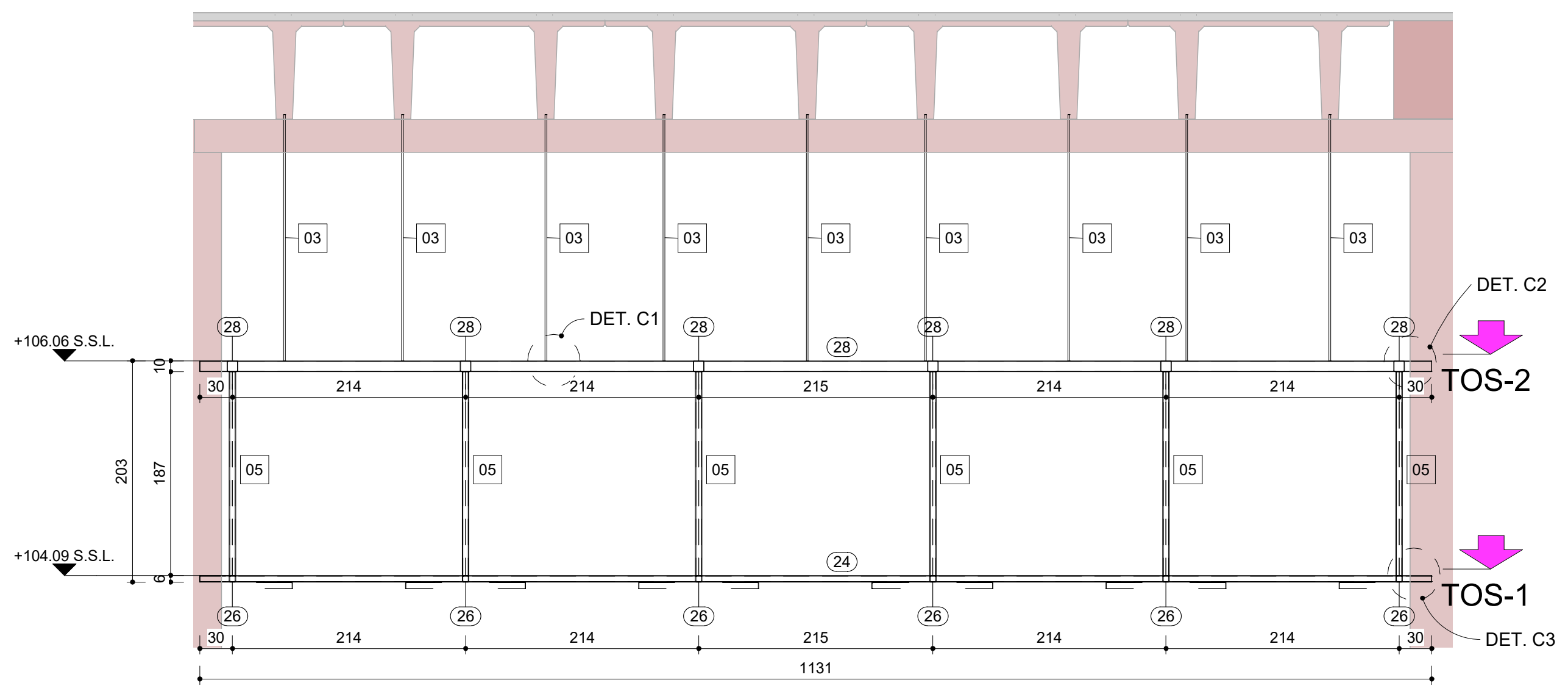
Sect. / Sez. - CA11 -
1 : 50



Sect. / Sez. - CA10 -
1 : 50

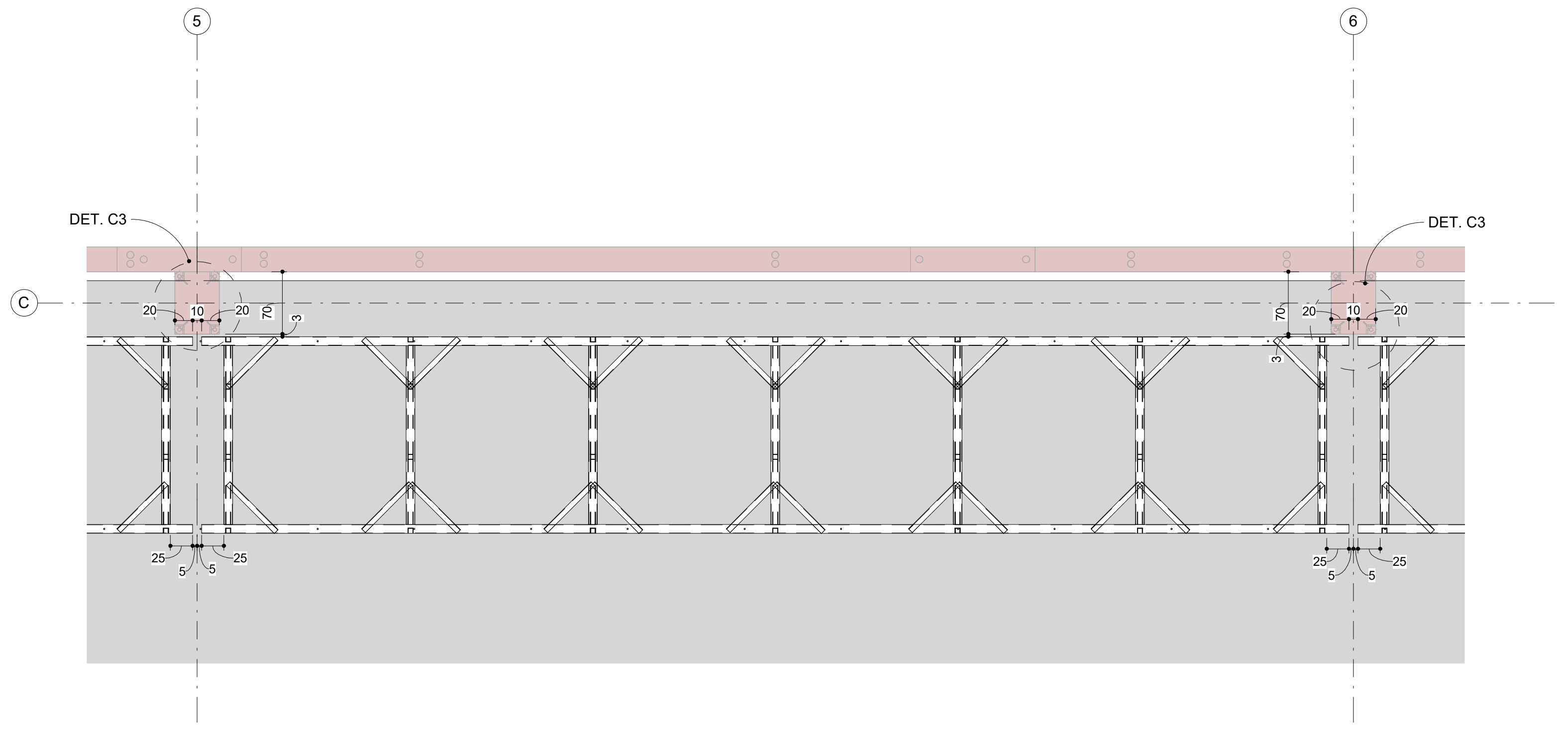


TOS-1 MEP Distribution structural frame / Struttura di distribuzione - Top view / Vista dall'alto -
1 : 50

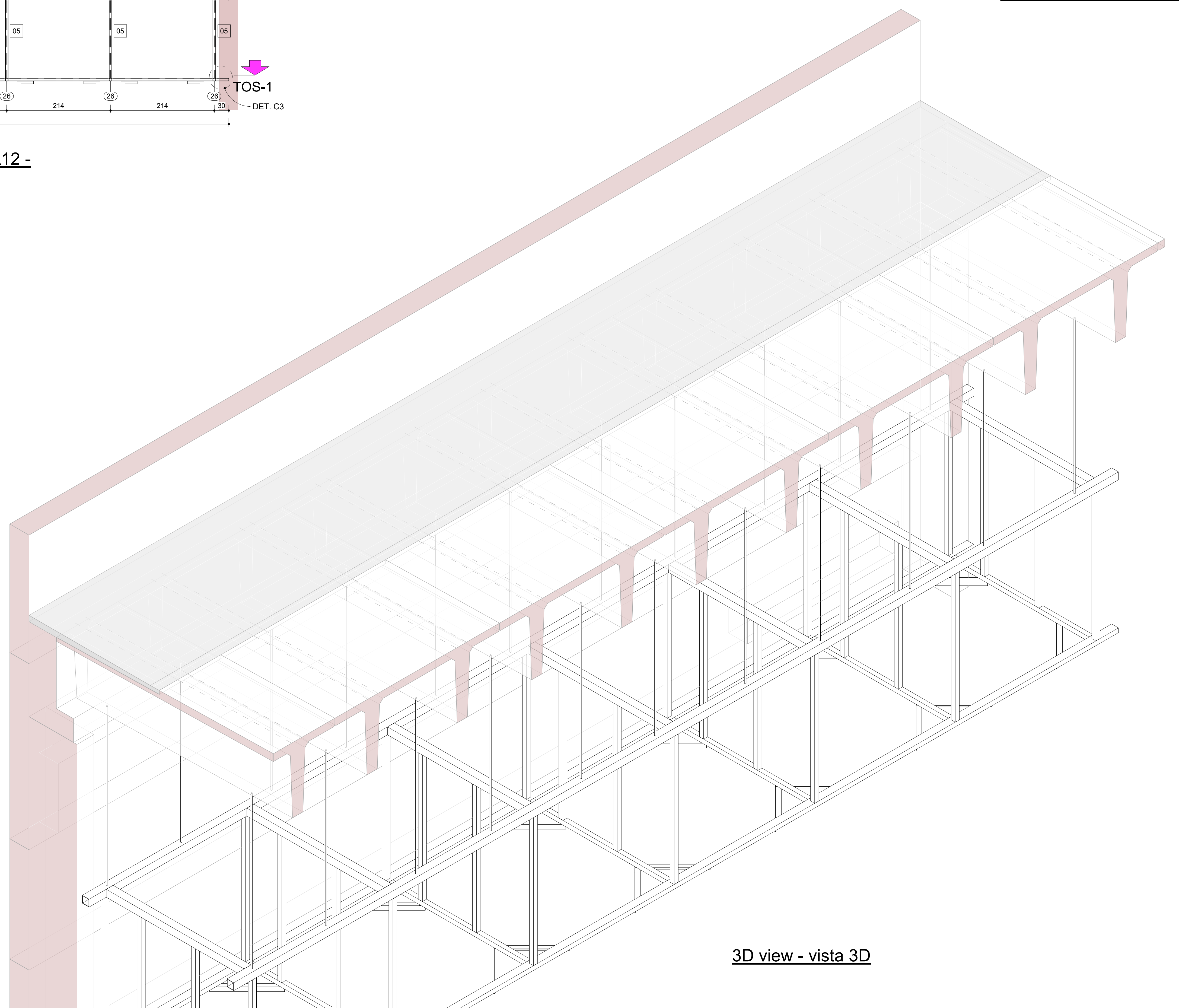


Sect. / Sez. - CA12 -
1 : 50

TYPE / TIPO 4



Typical structure placement / Posizionamento tipico struttura - Top view / Vista dall'alto -
1 : 50



3D view - vista 3D

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005 - PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006		
PROFILI	LAMIERE	TUBI
☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☒ S 275 H JR ☐ S 355 H JO

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola ⊠ₐ, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☐ Zincatura a caldo UNI EN ISO 1461 : 2009 ☒ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☒ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☐ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885

VITE
DADO d
0,5 d
SPESSORI DA COLLEGARE
ROSETTA
S = k d $F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
☐ FORO d + 1,0 mm per d ≤ 20 mm; d + 1,5 mm per d ≥ 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005 - HOLLOW SECTIONS - UNI EN 10210-1 : 2006		
ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☐ S 235 JR ☒ S 275 JR ☐ S 355 JO	☒ S 275 H JR ☐ S 355 H JO

WELDS Filled welds not specified must have a throat depth of "a" , ⊠ₐ a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☐ Hot dip galvanized UNI EN ISO 1461 : 2009 ☒ Painted according to specifications

BOLT PROTECTION ☐ Rought ☒ Cold galvanized UNI EN ISO 4042 : 2003 ☐ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885

BOLT
NUT d
0,5 d
THICKNESS SUM
WASHER
S = k d $F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
☐ FORO d + 1,0 mm for d ≤ 20 mm; d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

NOTE/NOTA:
For painting according to specifications refer to CHAP. D.8.3 + CHAP. D.8.7
Per la vernicatura secondo le specifiche fare riferimento al CAP. D.8.3 + CAP. D.8.7

STEEL FRAMING / TRAVI E CONTROVENTI IN ACCIAIO

20	SFM.CHS88.9x5
21	SFM.HE140A
22	SFM.IPE140
23	SFM.L60x60x5
24	SFM.RHS100X60x5
25	SFM.RHS100X80x5
26	SFM.SHS60x60x5
28	SFM.SHS100x100x5
29	SFM.UPN140

STEEL COLUMNS / PILASTRI IN ACCIAIO

01	SCM.HE300A
02	SCM.SHS300x300x12.5
03	SCM.RB16
04	SCM.SHS100x100x5
05	SCM.SHS60x60x5

Ga Plans Legend / Legenda Carpenteria

▆	Cast in place concrete section element / Sezione elementi gettati in opera
▭	Cast in place concrete element view / Elementi gettati in opera in vista
🟥	Precast concrete section element / Sezione elementi prefabbricati
+ x.xx ▼	F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri

General Notes

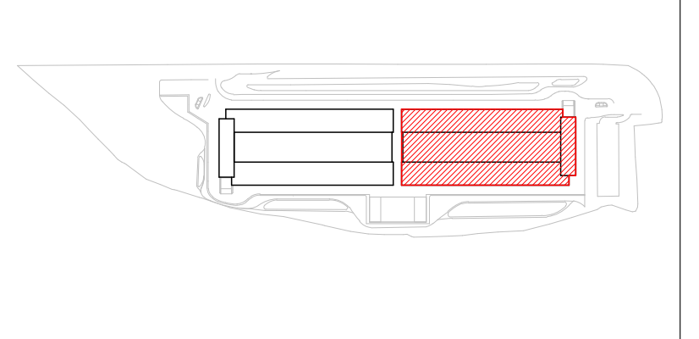
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50
N

Key Plan



NOTES / NOTE:

1. For typical details C1 - C2 - C3 refer to drawing SF510 / Per i dettagli tipici C1 - C2 - C3 fare riferimento alla tavola SF510

2. Elements 03, 05 and 23 are to be considered hinged at end connections. The rest of the elements are to be considered as fixed at end connections / Gli elementi 03, 05 e 23 sono considerati incernierati alle estremità. Tutti gli altri elementi sono invece considerati tra loro incastrati.

3. Welds are not drawn, all welds are to be considered full fillet welds and double full fillet welds whenever possible / Le connessioni tra gli elementi, sebbene non specificate, si intendono saldate con cordoni d'angolo su entrambi i lati dell'elemento da collegare, ove la geometria lo consenta.

4. Threaded rod "03" to be defined by the GC, compatible with the inserts in the double tees and connection detail DET.C1. / Barra filettata "03" a cura del GC, compatibile con gli inserti nei tegoli a doppio T e il dettaglio DET.C1.

Note well / Nota bene

Design is indicative and to be refined using an approved support system frame and suspension from the structural grid supporting the suspended ceiling system / Il progetto è indicativo e dovrà essere perfezionato e approvato utilizzando un telaio di supporto appeso alla griglia strutturale che sostiene il sistema di controsoffitti.

Rev	Details	By / Chkd / App	Date
P04	Issued for Construction	FCT/FIBH/MEG	22/02/2023
P03	Issued for Construction	FCT/FIBH/MEG	17/02/2023
P02	Issued for Compass Review	FCT/FIBH/MEG	01/02/2023
P01	Issued for QA/QC	FCT/FIBH/MEG	27/01/2023

Client
COMPASS datacenters

Architectural / Civil / Structural
MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer
Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
MEP Distribution Structural Frame
Plans and Sections
Type 4 Frame

Project Status
ISSUED FOR CONSTRUCTION

Discipline
Structural

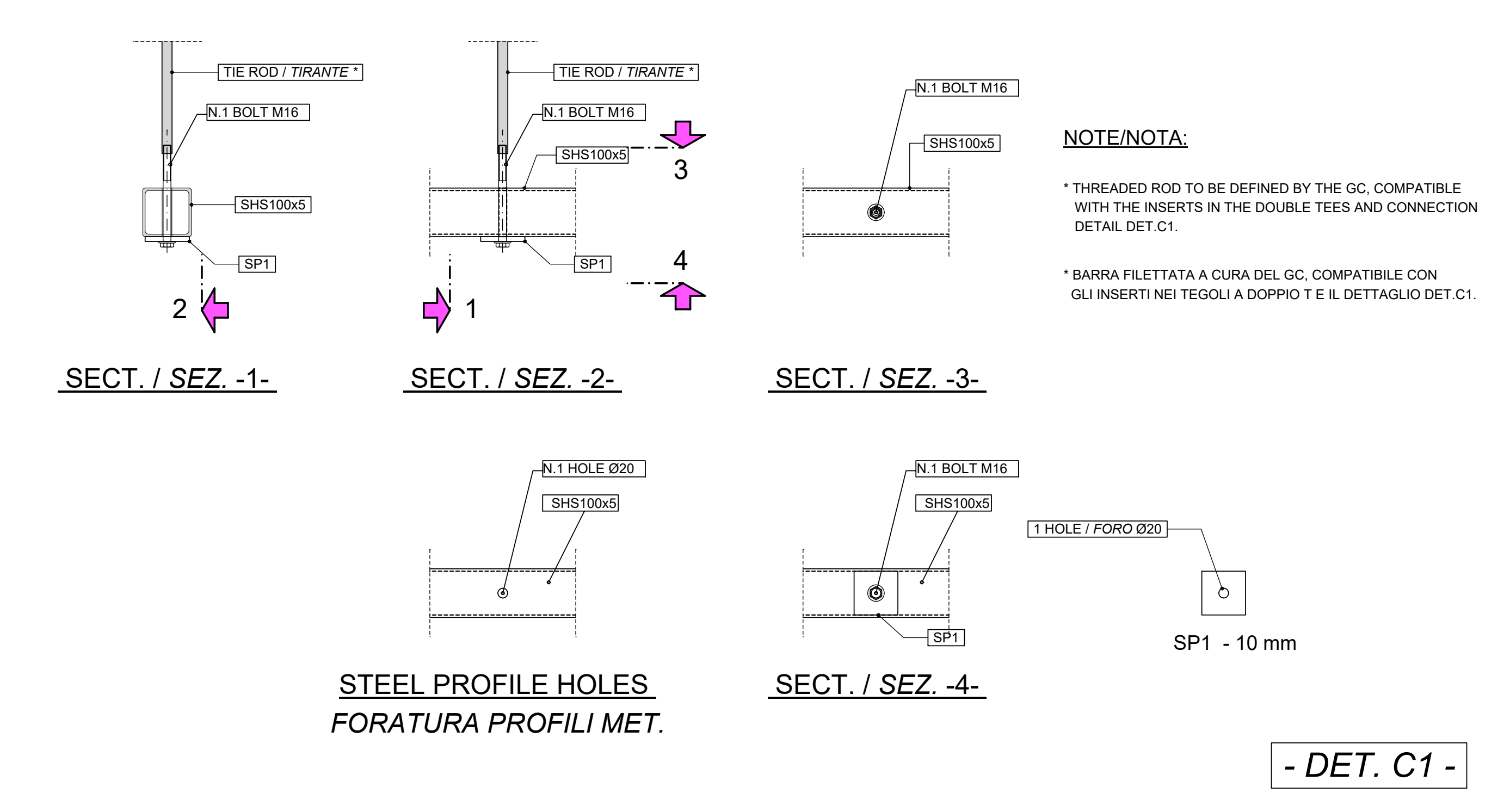
Status Code
S5

Project Number
P10424

Scale @ A0
1:50

Revision
P04

Drawing Number
SF113

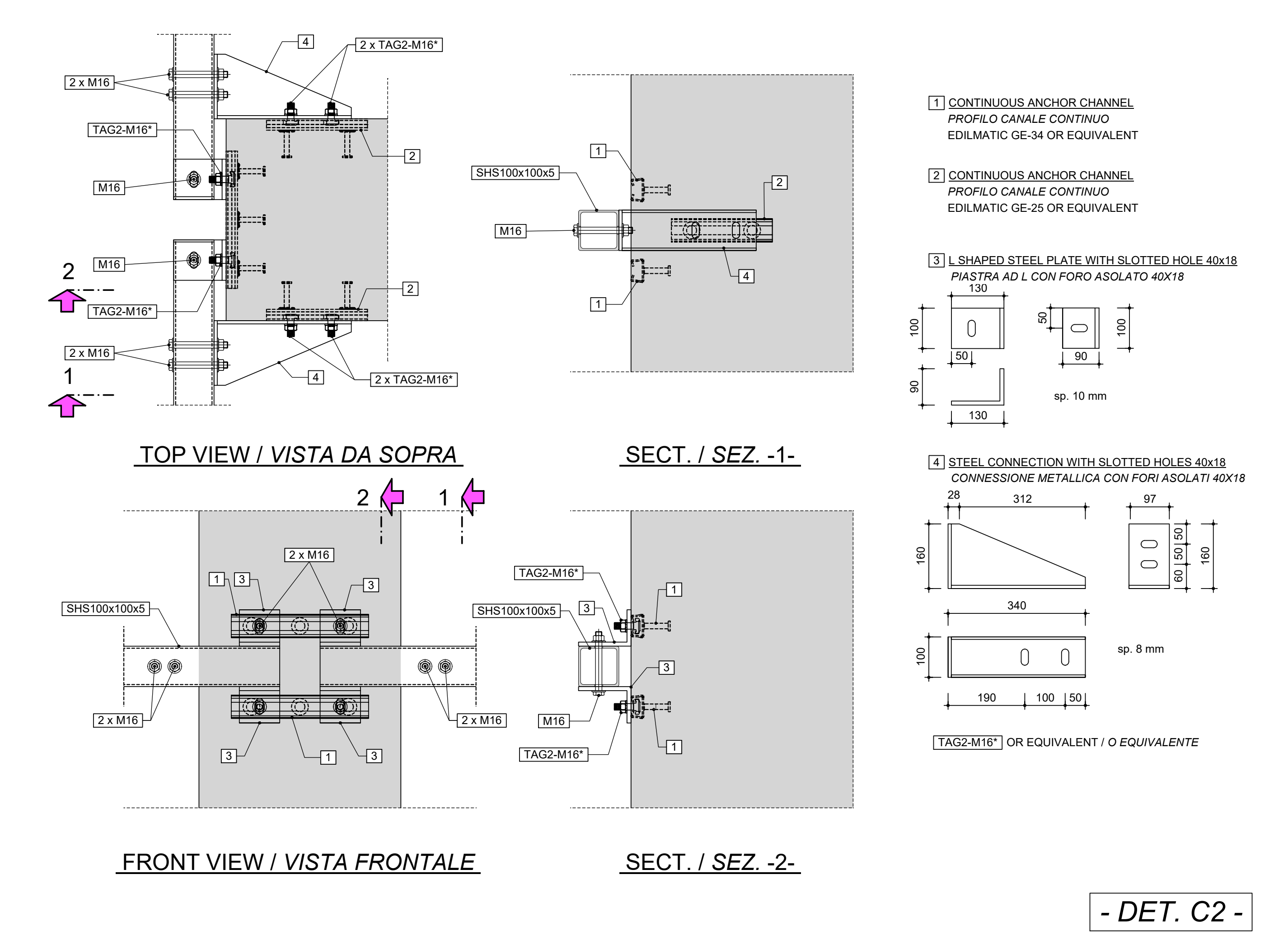

TIE ROD / *TIRANTE* *
N.1 BOLT M16
SHS100x5
SP1
2
1
3
4
SECT. / *SEZ.* -1-
SECT. / *SEZ.* -2-
SECT. / *SEZ.* -3-
N.1 HOLE Ø20
STEEL PROFILE HOLES
FORATURA PROFILI MET.
SECT. / *SEZ.* -4-
1 HOLE / *FORO* Ø20
SP1 - 10 mm

NOTE/NOTA:

* THREADED ROD TO BE DEFINED BY THE GC, COMPATIBLE WITH THE INSERTS IN THE DOUBLE TEES AND CONNECTION DETAIL DET.C1.

* BARRA FILETTATA A CURA DEL GC, COMPATIBILE CON GLI INSERTI NEI TEGOLI A DOPPIO T E IL DETTAGLIO DET.C1.

- DET. C1 -


2 x M16
TAG2-M16*
M16
2 x TAG2-M16*
1
2
3
4
TOP VIEW / *VISTA DA SOPRA*
SHS100x100x5
SECT. / *SEZ.* -1-
FRONT VIEW / *VISTA FRONTALE*
SECT. / *SEZ.* -2-
130
100
50
90
sp. 10 mm
28
312
97
160
340
190
100
60
sp. 8 mm

1 CONTINUOUS ANCHOR CHANNEL
PROFILO CANALE CONTINUO
EDILMATIC GE-34 OR EQUIVALENT

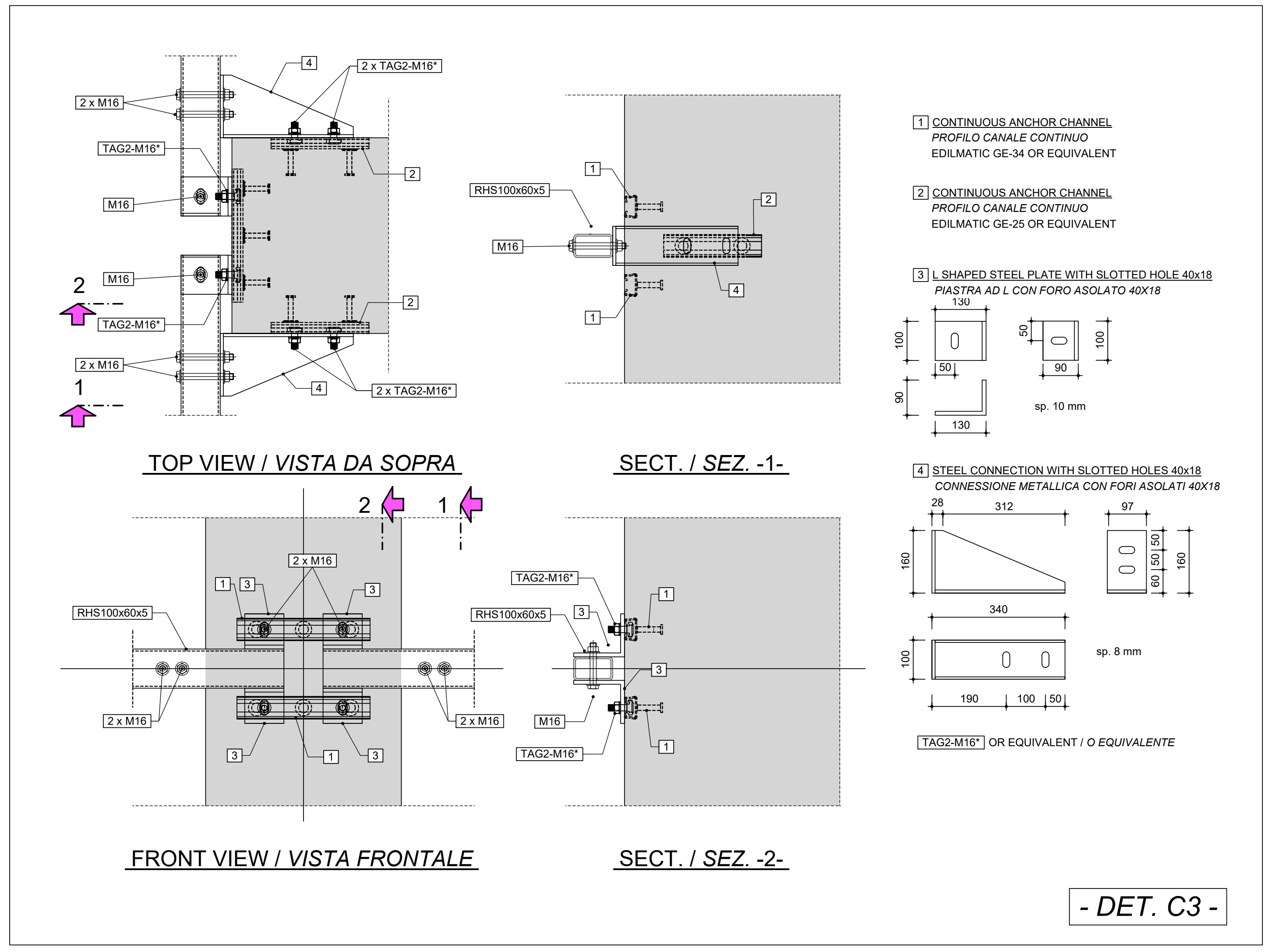
2 CONTINUOUS ANCHOR CHANNEL
PROFILO CANALE CONTINUO
EDILMATIC GE-25 OR EQUIVALENT

3 L SHAPED STEEL PLATE WITH SLOTTED HOLE 40x18
PIASTRA AD L CON FORO ASOLATO 40X18

4 STEEL CONNECTION WITH SLOTTED HOLES 40x18
CONNESSIONE METALLICA CON FORI ASOLATI 40X18

TAG2-M16* OR EQUIVALENT / *O EQUIVALENTE*

- DET. C2 -


2 x M16
TAG2-M16*
M16
2 x TAG2-M16*
1
2
3
4
TOP VIEW / *VISTA DA SOPRA*
RHS100x60x5
SECT. / *SEZ.* -1-
FRONT VIEW / *VISTA FRONTALE*
SECT. / *SEZ.* -2-
130
100
50
90
sp. 10 mm
28
312
97
160
340
190
100
60
sp. 8 mm

1 CONTINUOUS ANCHOR CHANNEL
PROFILO CANALE CONTINUO
EDILMATIC GE-34 OR EQUIVALENT

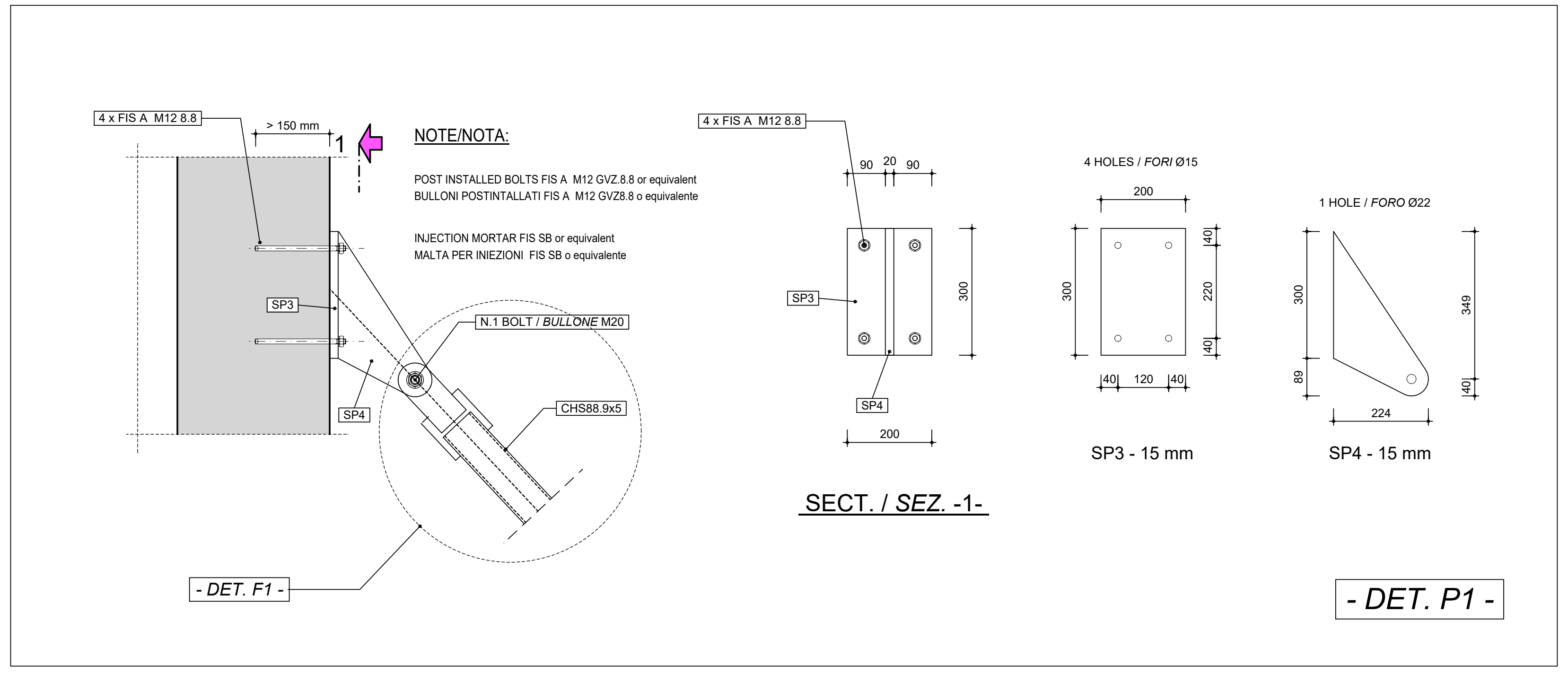
2 CONTINUOUS ANCHOR CHANNEL
PROFILO CANALE CONTINUO
EDILMATIC GE-25 OR EQUIVALENT

3 L SHAPED STEEL PLATE WITH SLOTTED HOLE 40x18
PIASTRA AD L CON FORO ASOLATO 40X18

4 STEEL CONNECTION WITH SLOTTED HOLES 40x18
CONNESSIONE METALLICA CON FORI ASOLATI 40X18

TAG2-M16* OR EQUIVALENT / *O EQUIVALENTE*

- DET. C3 -

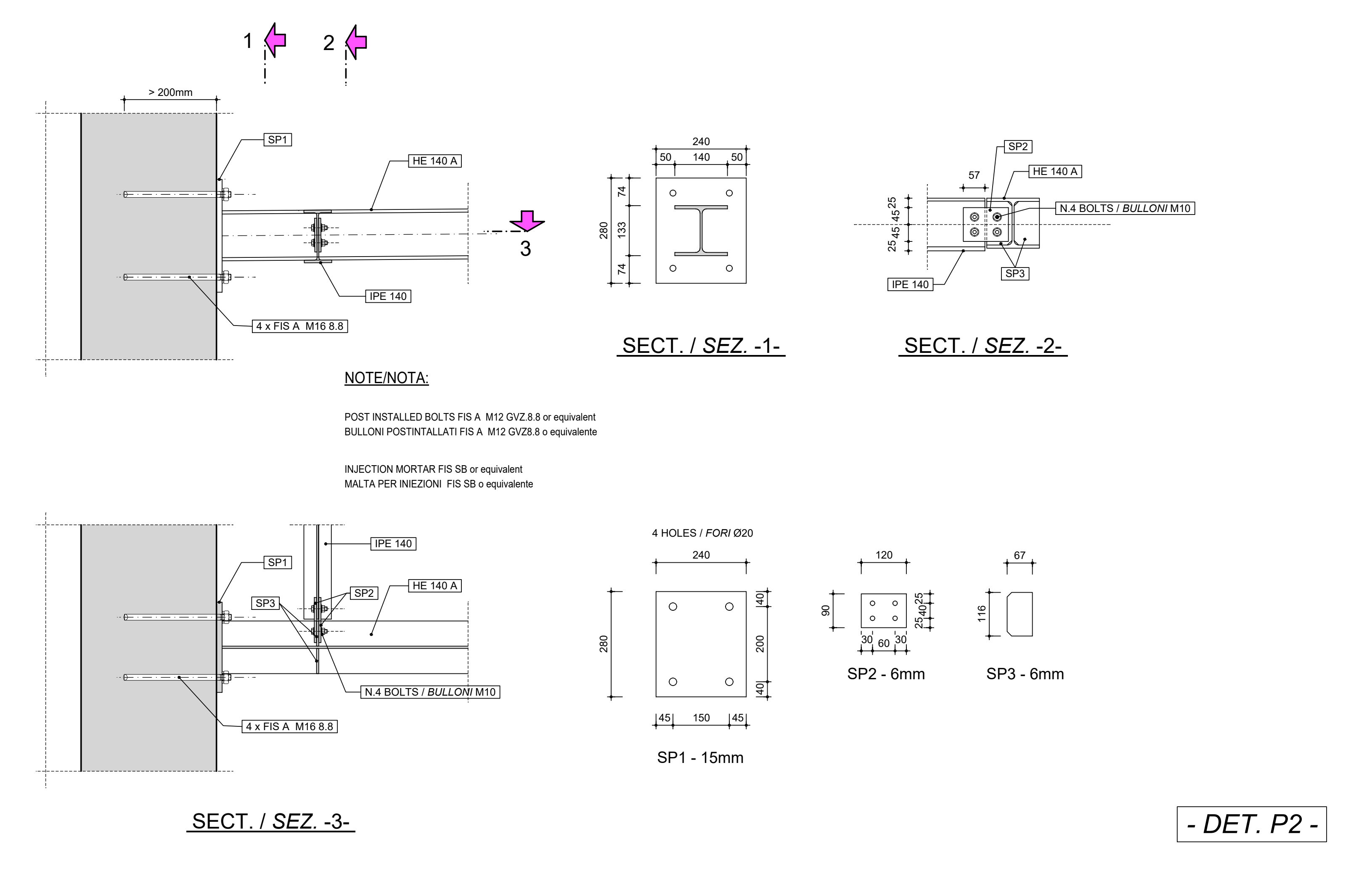

4 x FIS A M12 8.8
> 150 mm
1
SP3
SP4
N.1 BOLT / *BULLONE* M20
CHS88.9x5
- *DET. F1* -
90
20
200
300
SECT. / *SEZ.* -1-
4 HOLES / *FORI* Ø15
40
120
220
SP3 - 15 mm
1 HOLE / *FORO* Ø22
89
224
349
SP4 - 15 mm

NOTE/NOTA:

POST INSTALLED BOLTS FIS A M12 GVZ.8.8 or equivalent
BULLONI POSTINTALLATI FIS A M12 GVZ8.8 o equivalente

INJECTION MORTAR FIS SB or equivalent
MALTA PER INIEZIONI FIS SB o equivalente

- DET. P1 -

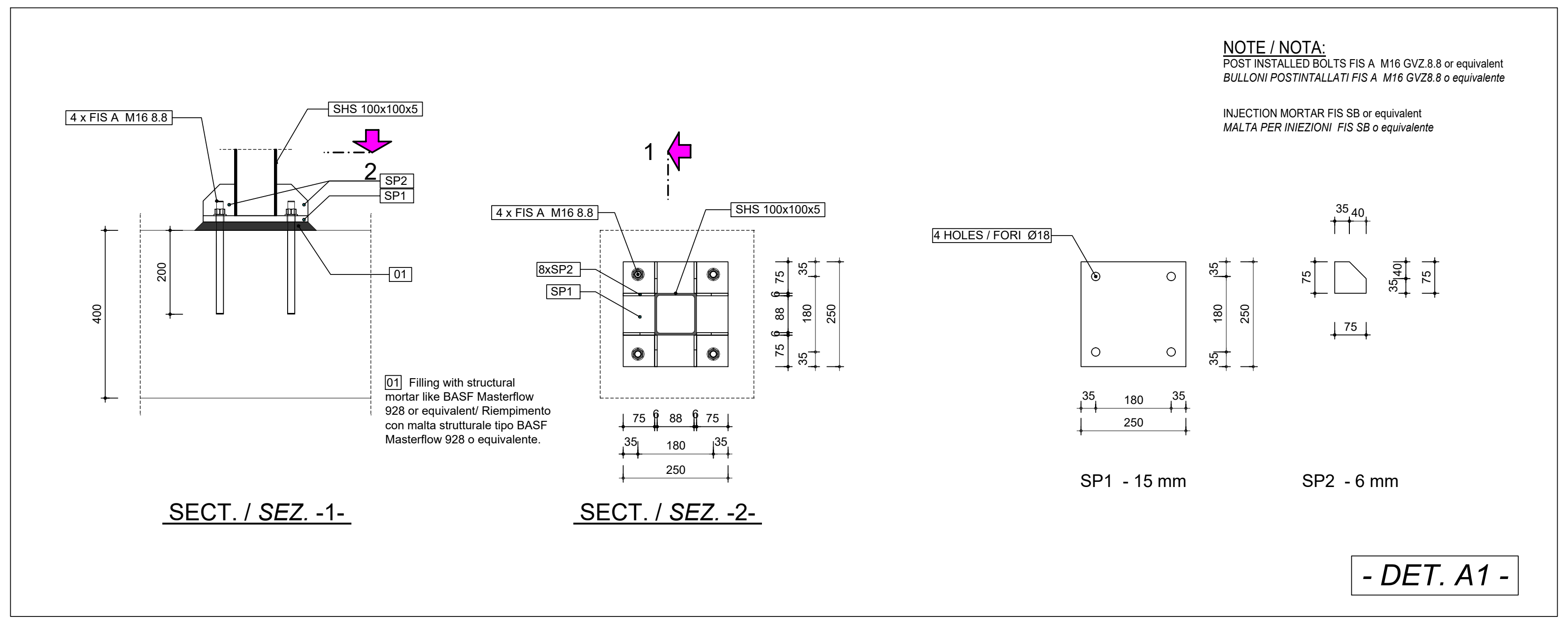

1
2
3
> 200mm
SP1
HE 140 A
IPE 140
4 x FIS A M16 8.8
240
50
140
280
74
133
SECT. / *SEZ.* -1-
SP2
SP3
57
25
45
N.4 BOLTS / *BULLONI* M10
SECT. / *SEZ.* -2-
SECT. / *SEZ.* -3-
4 HOLES / *FORI* Ø20
200
40
150
SP1 - 15mm
120
90
30
60
SP2 - 6mm
67
116
SP3 - 6mm

NOTE/NOTA:

POST INSTALLED BOLTS FIS A M12 GVZ.8.8 or equivalent
BULLONI POSTINTALLATI FIS A M12 GVZ8.8 o equivalente

INJECTION MORTAR FIS SB or equivalent
MALTA PER INIEZIONI FIS SB o equivalente

- DET. P2 -

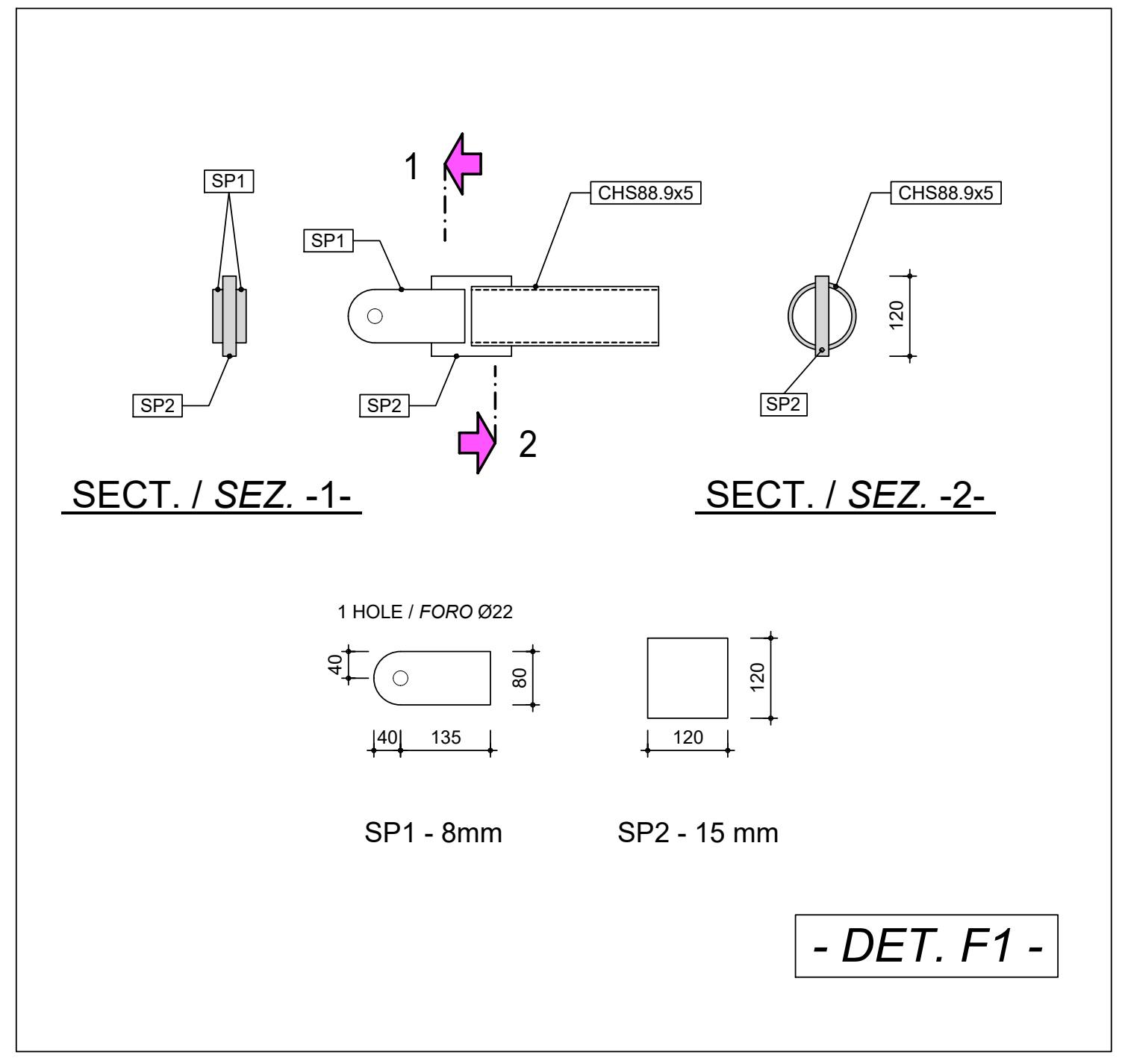

4 x FIS A M16 8.8
SHS 100x100x5
2
SP2
SP1
01
400
200
SECT. / *SEZ.* -1-
1
8xSP2
75
6
88
35
180
250
SECT. / *SEZ.* -2-
4 HOLES / FORI Ø18
SP1 - 15 mm
40
SP2 - 6 mm

01 Filling with structural mortar like BASF Masterflow 928 or equivalent/ Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente.

NOTE / NOTA:
POST INSTALLED BOLTS FIS A M16 GVZ.8.8 or equivalent
BULLONI POSTINTALLATI FIS A M16 GVZ8.8 o equivalente

INJECTION MORTAR FIS SB or equivalent
MALTA PER INIEZIONI FIS SB o equivalente

- DET. A1 -


SP1
SP2
1
2
CHS88.9x5
120
SECT. / *SEZ.* -1-
SECT. / *SEZ.* -2-
1 HOLE / *FORO* Ø22
40
80
135
SP1 - 8mm
SP2 - 15 mm

- DET. F1 -

GENERAL NOTE / *NOTA GENERALE* :

1. Welds are not drawn, all welds are to be considered full fillet welds and double full fillet welds whenever possible.

Le connessioni tra gli elementi, sebbene non specificate, si intendono saldate con cordoni d'angolo su entrambi i lati dell'elemento da collegare, ove la geometria lo consenta.

2. Dimensions in mm / *Dimensioni in mm*

MATERIALS / *MATERIALI*

DETAILS / *DETTAGLI* C1-C2-C3

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

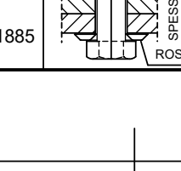
PROFILI	LAMIERE	TUBI
☐ S 235 JR	☐ S 235 JR	
☒ S 275 JR	☒ S 275 JR	☒ S 275 H JR
☐ S 355 JO	☐ S 355 JO	☐ S 355 H JO

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☐ Zincatura a caldo UNI EN ISO 1461 : 2009 ☒ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☒ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☐ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
8.8 - UNI EN ISO 4016 ☒ UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
10.9 - UNI EN ISO 4016 ☐ UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885


0,5 d
d
VITE
DADO d
SPESSORI DA COLLEGARE
ROSETTA

$S = k\ d\ F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
ø FORO – d + 1,0 mm per d ≤ 20 mm; d + 1,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

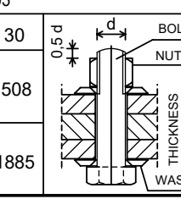
ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR	☐ S 235 JR	
☒ S 275 JR	☒ S 275 JR	☒ S 275 H JR
☐ S 355 JO	☐ S 355 JO	☐ S 355 H JO

WELDS Filled welds not specified must have a throat depth of "a", a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☐ Hot dip galvanized UNI EN ISO 1461 : 2009 ☒ Painted according to specifications

BOLT PROTECTION ☐ Rought ☒ Cold galvanized UNI EN ISO 4042 : 2003 ☐ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
8.8 - UNI EN ISO 4016 ☒ UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
10.9 - UNI EN ISO 4016 ☐ UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885


0,5 d
d
BOLT
NUT d
THICKNESS SUM
WASHER

$S = k\ d\ F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
ø FORO – d + 1,0 mm for d ≤ 20 mm; d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

NOTE/NOTA:
For painting according to specifications refer to CHAP. D.8.3 + CHAP. D.8.7
Per la verniciatura secondo le specifiche fare riferimento al CAP. D.8.3 + CAP. D.8.7

MATERIALS / *MATERIALI*

DETAILS / *DETTAGLI* A1-P1-P2-F1

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

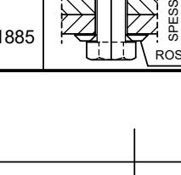
PROFILI	LAMIERE	TUBI
☐ S 235 JR	☐ S 235 JR	
☒ S 275 J0	☒ S 275 J0	☒ S 275 H J0
☐ S 355 J0	☐ S 355 J0	☐ S 355 H J0

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☒ Zincatura a caldo UNI EN ISO 1461 : 2009 ☐ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☐ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☒ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
8.8 - UNI EN ISO 4016 ☒ UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
10.9 - UNI EN ISO 4016 ☐ UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885


0,5 d
d
VITE
DADO d
SPESSORI DA COLLEGARE
ROSETTA

$S = k\ d\ F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
ø FORO – d + 1,0 mm per d ≤ 20 mm; d + 1,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

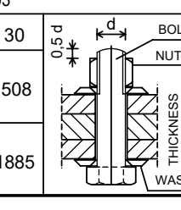
ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR	☐ S 235 JR	
☒ S 275 J0	☒ S 275 J0	☒ S 275 H J0
☐ S 355 J0	☐ S 355 J0	☐ S 355 H J0

WELDS Filled welds not specified must have a throat depth of "a", a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☒ Hot dip galvanized UNI EN ISO 1461 : 2009 ☐ Painted according to specifications

BOLT PROTECTION ☐ Rought ☐ Cold galvanized UNI EN ISO 4042 : 2003 ☒ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
8.8 - UNI EN ISO 4016 ☒ UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
10.9 - UNI EN ISO 4016 ☐ UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885


0,5 d
d
BOLT
NUT d
THICKNESS SUM
WASHER

$S = k\ d\ F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
ø FORO – d + 1,0 mm for d ≤ 20 mm; d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
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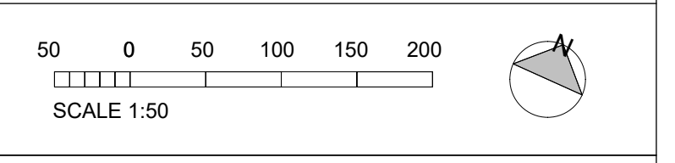
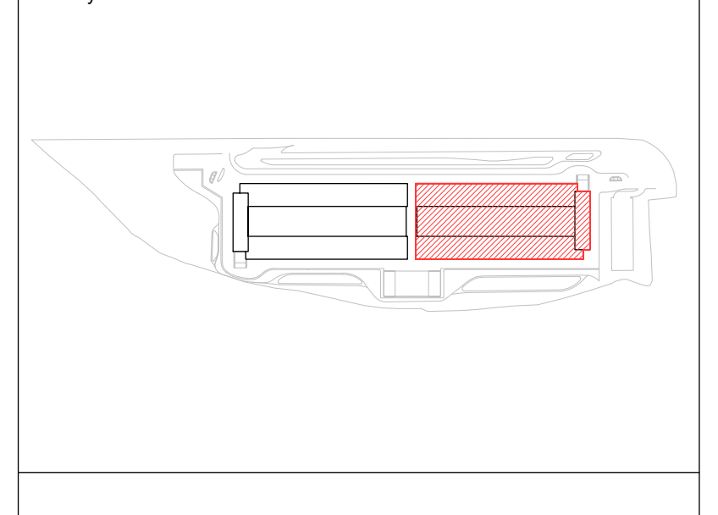
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.


50
0
50
100
150
200
N

SCALE 1:50

Key Plan



NOTE :

1. Connections to precast elements may be modified by precast manifacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision /
I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	DAP/FIBH/MEG	17/02/2023
P02	Issued for Compass Review	DAP/FIBH/MEG	01/02/2023
P01	Issued for QA/QC	DAP/FIBH/MEG	27/01/2023

Client

COMPASS™ datacenters

Architectural / Civil

MAESTRALE

STARCHING

ARIATTA INGEGNERIA DEI SISTEMI SPA

Redesco Structural Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
Typical Details

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

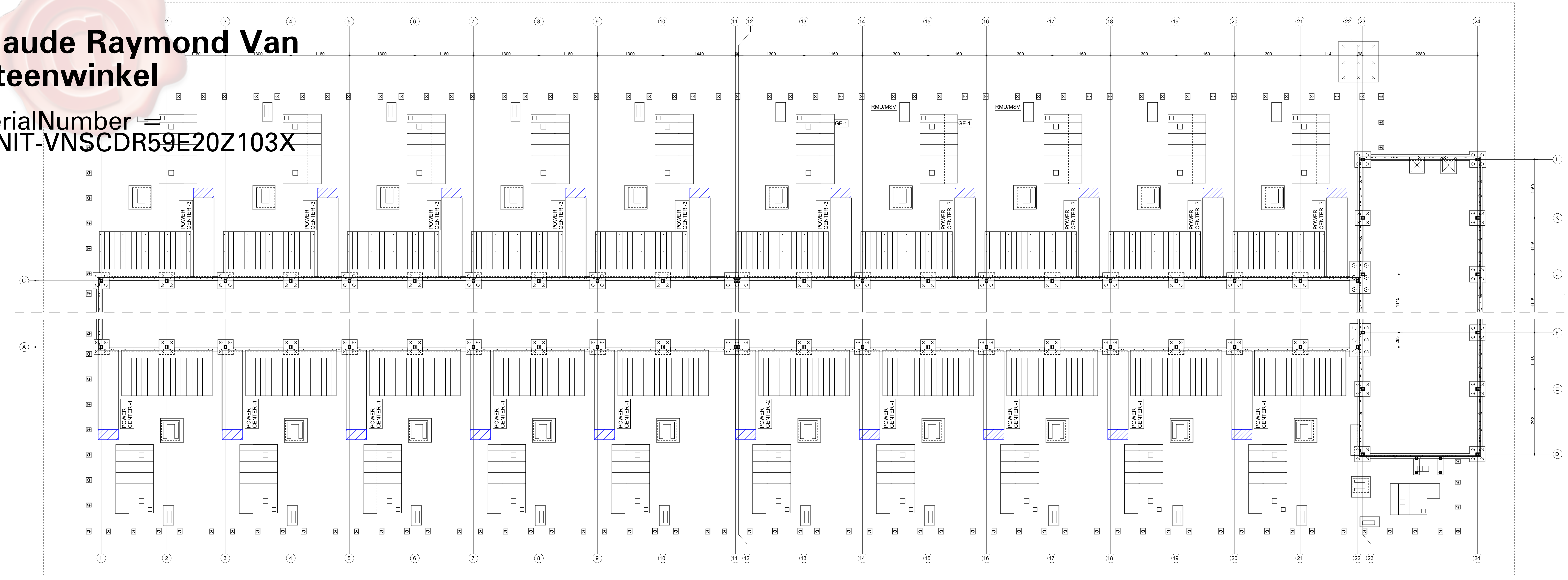
Project Number	Scale @ A0	Revision
P10424	**1:10**	**P03**

Drawing Number
SF510

Firmato digitalmente da

Claude Raymond Van Steenwinkel

SerialNumber = TINIT-VNSCDR59E20Z103X


1
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11
12
13
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17
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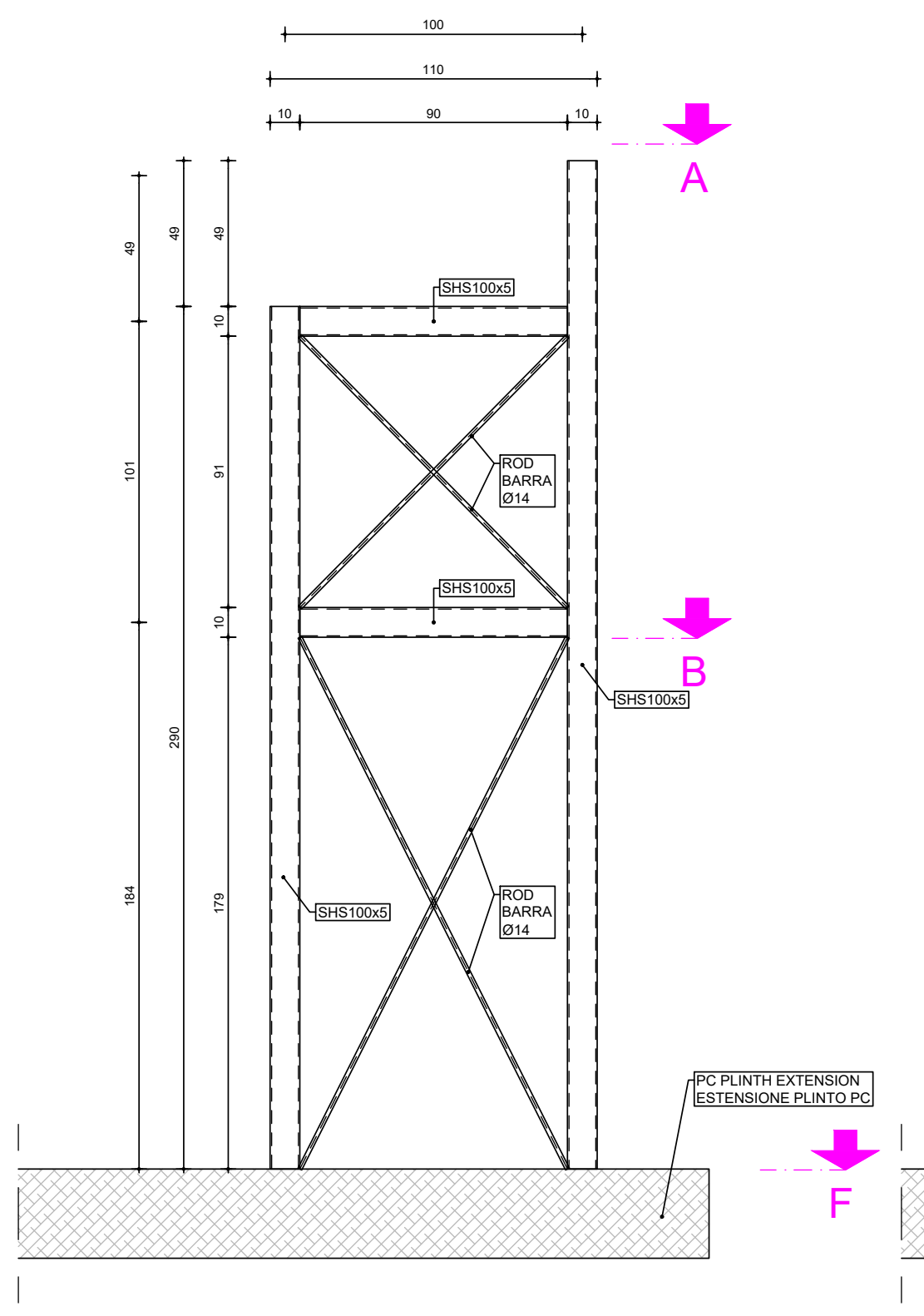
21
22
23
24
A
C
D
E
F
J
K
L
1160
1300
1440
1141
2280
1115
1160
1292
RMU/MSV
GE-1
POWER CENTER -3
POWER CENTER -1
POWER CENTER -2

KEYPLAN

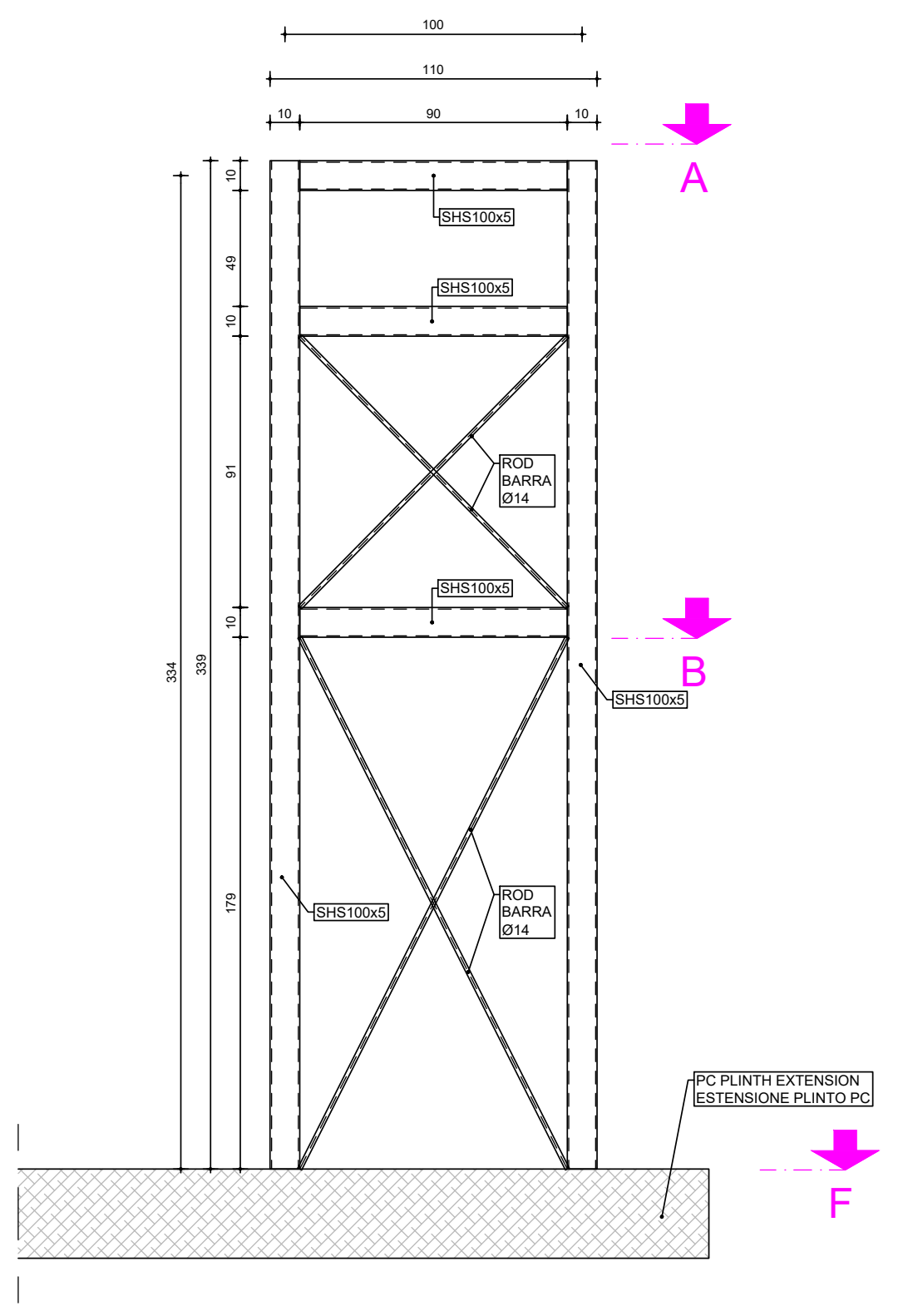
1:300

▨ PC TAP BOX SECONDARY SUPPORT STRUCTURE LOCATION
PC TAP BOX POSIZIONE DELLA STRUTTURA SECONDARIA DI SUPPORTO


100
110
10
90
10
A
B
F
49
101
184
290
91
179
334
339
SHS100x5
ROD BARRA Ø14
PC PLINTH EXTENSION ESTENSIONE PLINTO PC

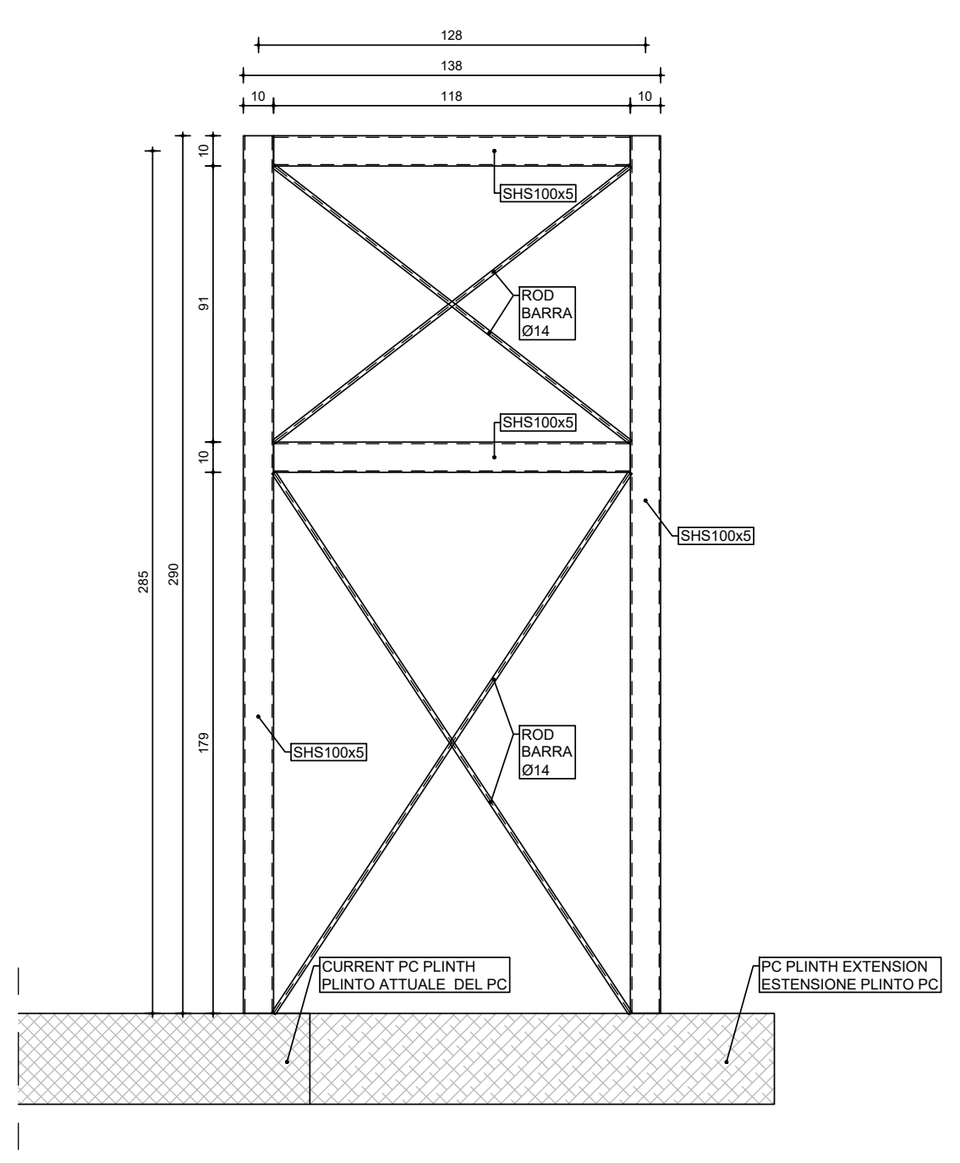
SECT./SEZ. -1-

SCALA 1:25


A
B
F
SHS100x5
ROD BARRA Ø14
PC PLINTH EXTENSION ESTENSIONE PLINTO PC

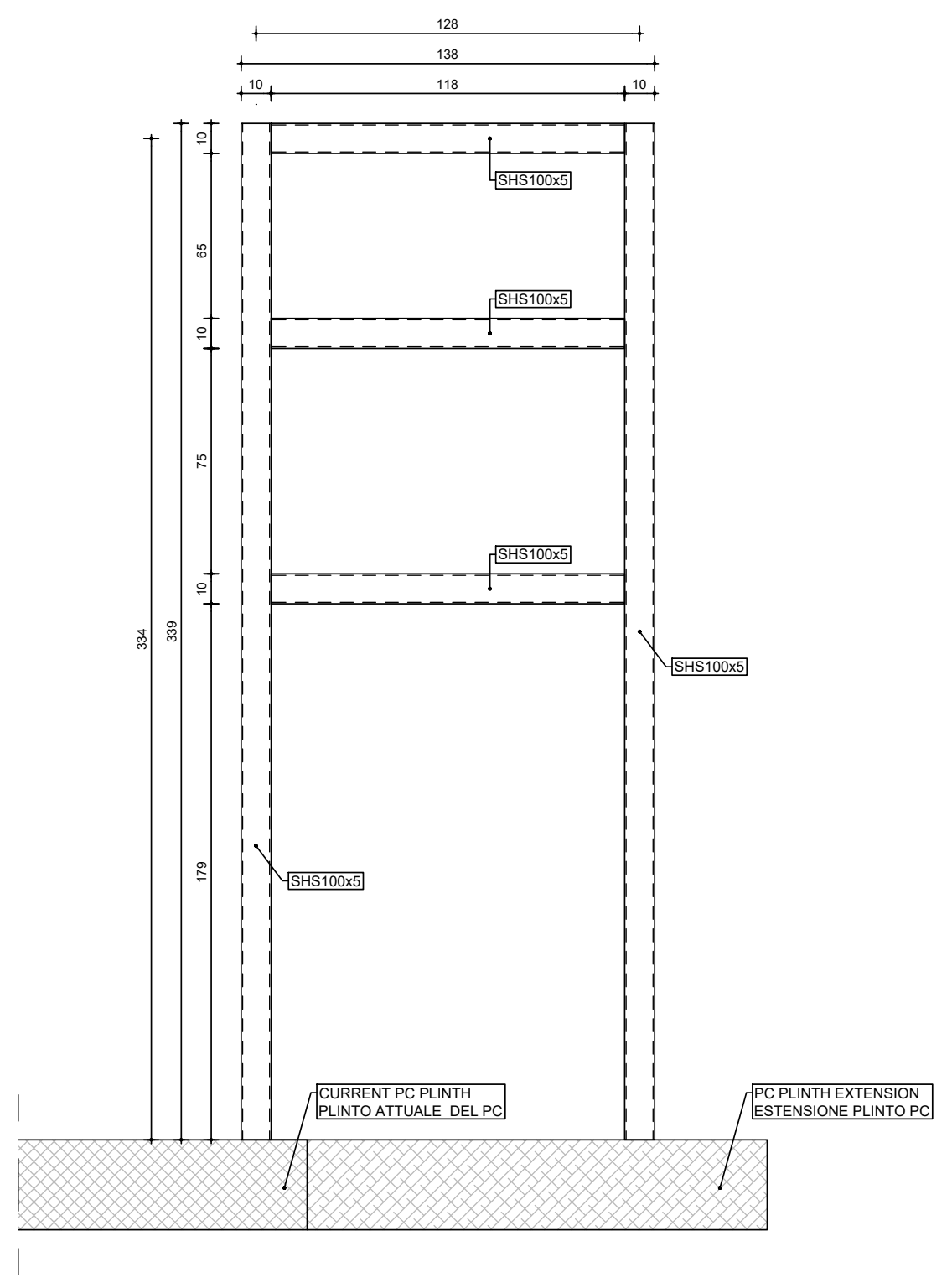
SECT./SEZ. -2-

SCALA 1:25


SHS100x5
ROD BARRA Ø14
CURRENT PC PLINTH PLINTO ATTUALE DEL PC
PC PLINTH EXTENSION ESTENSIONE PLINTO PC

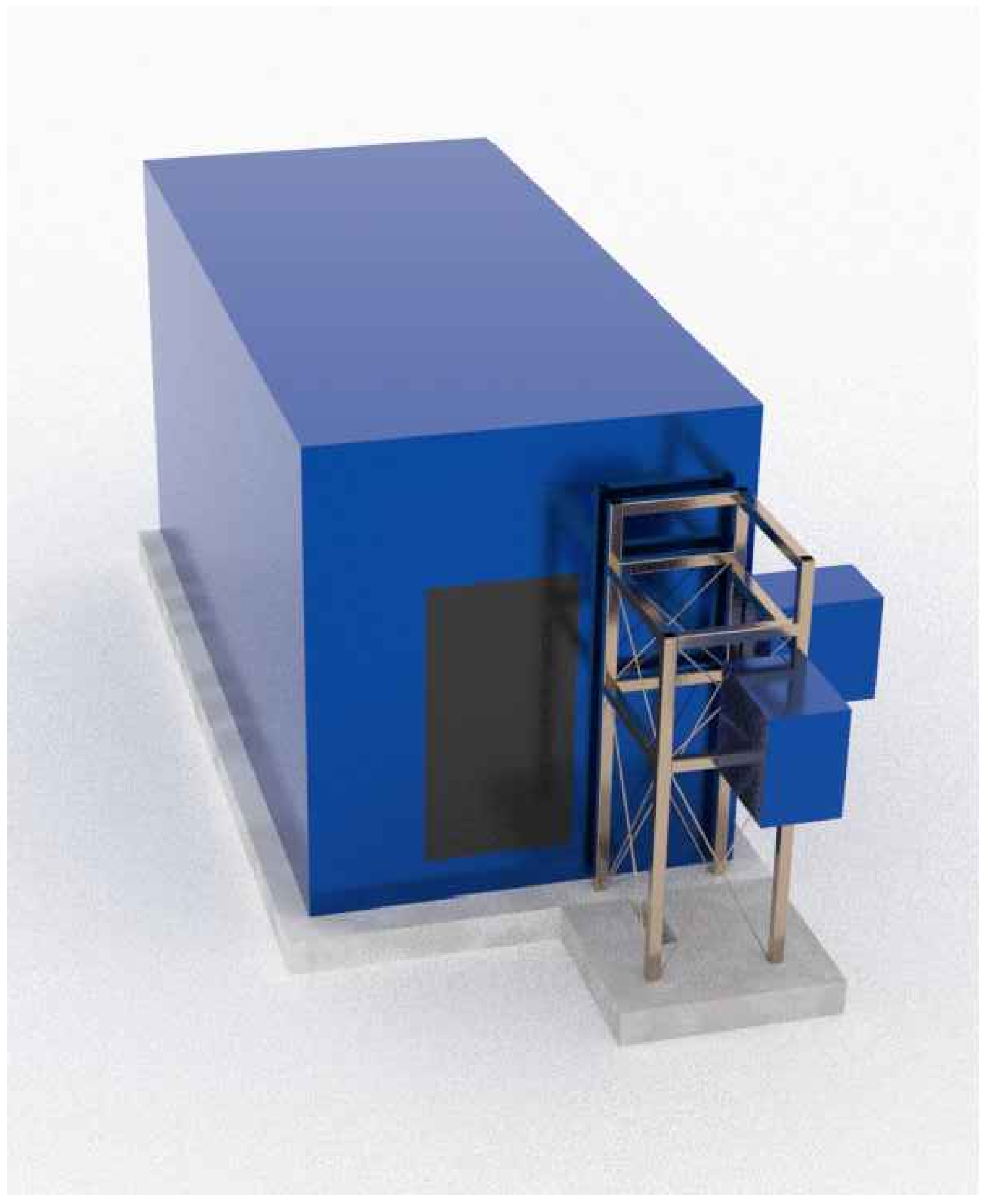
SECT./SEZ. -C-

SCALA 1:25

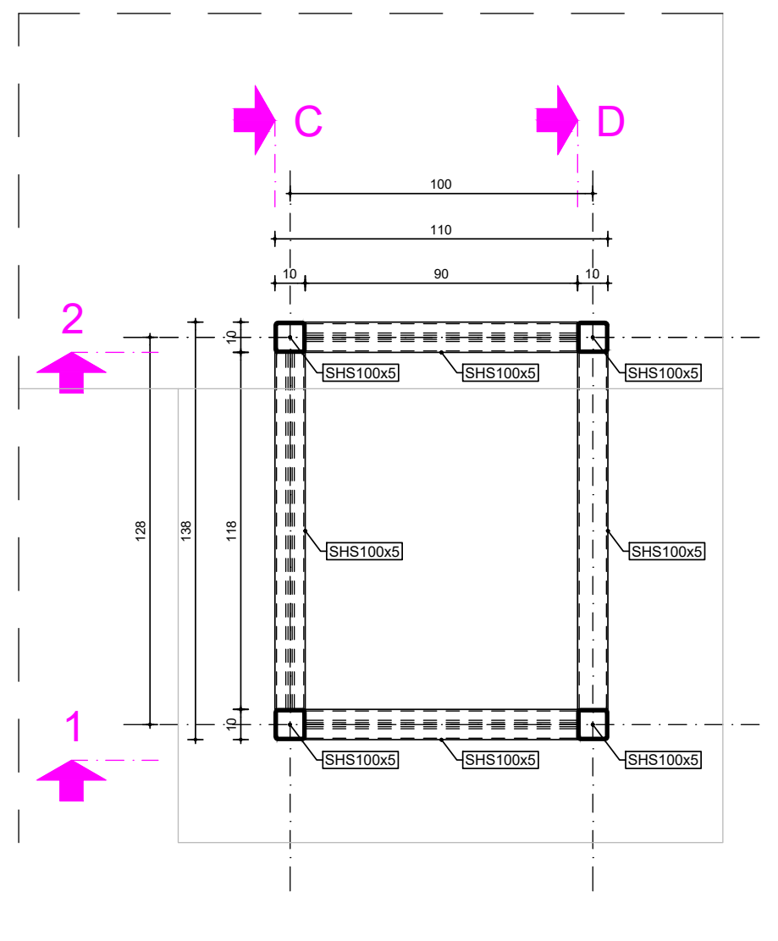

SHS100x5
CURRENT PC PLINTH PLINTO ATTUALE DEL PC
PC PLINTH EXTENSION ESTENSIONE PLINTO PC

SECT./SEZ. -D-

SCALA 1:25

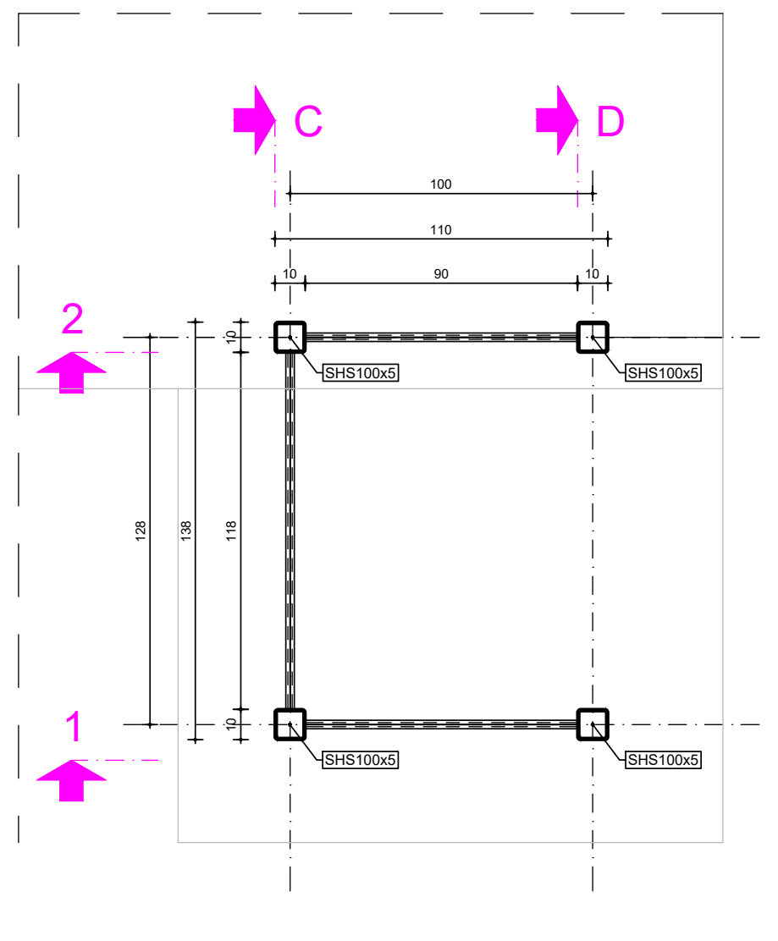


3D VIEW / VISTA 3D TAP BOX
SECONDARY SUPPORT STRUCTURE/STRUTTURA
SECONDARIA DI SUPPORTO


C
D
1
2
SHS100x5

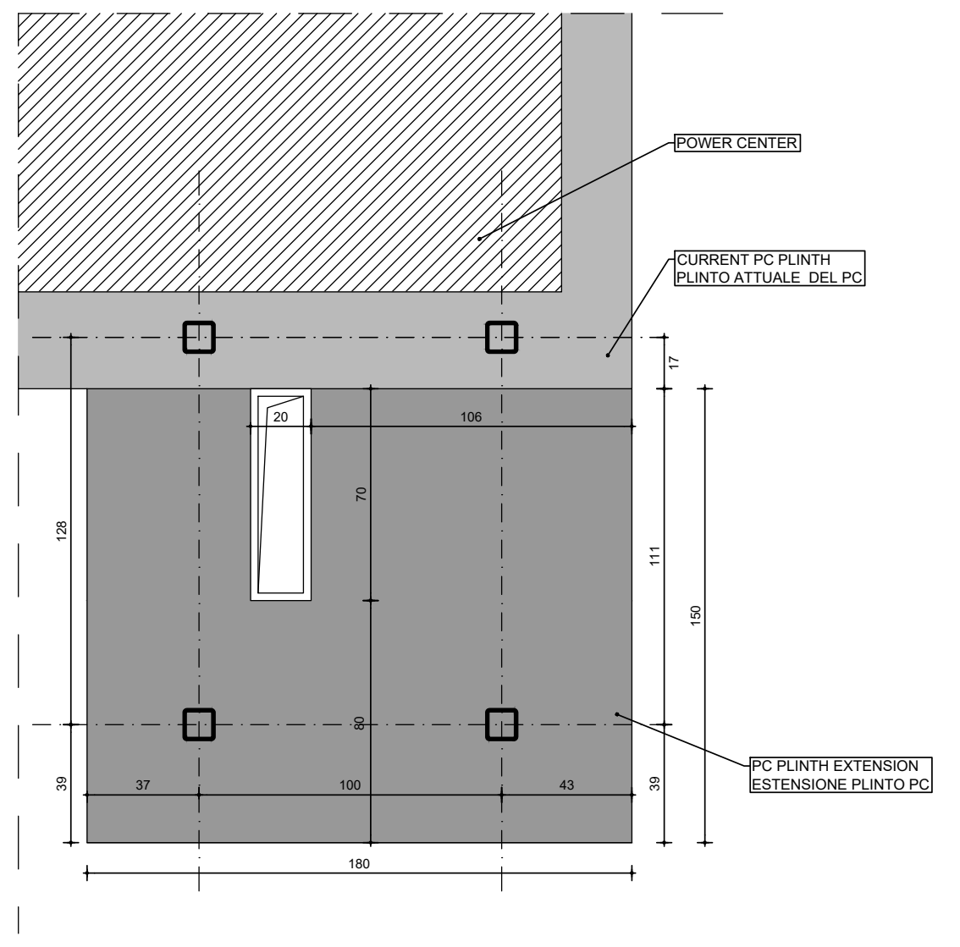
SECT./SEZ. -A-

SCALA 1:25


C
D
1
2
SHS100x5

SECT./SEZ. -B-

SCALA 1:25


POWER CENTER
CURRENT PC PLINTH PLINTO ATTUALE DEL PC
PC PLINTH EXTENSION ESTENSIONE PLINTO PC
20
106
70
80
128
111
150
17
39
37
100
43
39
180

SECT./SEZ. -F-

SCALA 1:25

3D VIEW / VISTA 3D

MATERIALI - PROFILI STRUTTURALI LAMINATI A CALDO - UNI EN 10025 : 2005
- PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006

PROFILI	LAMIERE	TUBI
☐ S 235 JR	☐ S 235 JR	
☒ S 275 J0	☒ S 275 J0	☒ S 275 H J0
☐ S 355 J0	☐ S 355 J0	☐ S 355 H J0

SALDATURA Le saldature d'angolo non indicate hanno spessore di gola, a = 0,7 lo spessore minimo da saldare
☒ Elettrodi certificati secondo UNI 5132:1974 ☐ Sotto gas protettore (MAG) ☐ Ad arco sommerso
☒ CLASSE I ☐ CLASSE II

PROTEZIONE CARPENTERIA ☐ Grezzo ☐ Sabbiatura SA 2 1/2 ☒ Zincatura a caldo UNI EN ISO 1461 : 2009 ☐ Verniciatura secondo specifiche

PROTEZIONE BULLONERIA ☐ Nera ☐ Zincatura elettrolitica UNI EN ISO 4042 : 2003 ☒ Zincatura a caldo ☐ ____________

VITE DADO ROSETTA	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885

$S = k\ d\ F_{p,C}$ (con k = 0,16 in tabella)
(*) per k ≠ 0,16 valori da ricalcolare
S = coppia serraggio (Nm)
Ø FORO: d + 1,0 mm per d ≤ 20 mm; d + 1,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DEGLI SPESSORI

VITE
DADO d
ROSETTA
0,5 d
d
SPESSORI DA COLLEGARE

MATERIALS - HOT ROLLED SECTIONS - UNI EN 10025 : 2005
- HOLLOW SECTIONS - UNI EN 10210-1 : 2006

ROLLED SECTIONS	PLATES	TUBES
☐ S 235 JR	☐ S 235 JR	
☒ S 275 J0	☒ S 275 J0	☒ S 275 H J0
☐ S 355 J0	☐ S 355 J0	☐ S 355 H J0

WELDS Filled welds not specified must have a throat depth of "a", a = 0,7 minimum thickness of the jointed parts
☒ Elettrodes type according to UNI 5132:1974 ☐ Under gas protection (MAG) ☐ With submerged arc
☒ CLASS I ☐ CLASS II

STEEL WORK PROTECTION ☐ Rought ☐ Sand blast SA 2 1/2 ☒ Hot dip galvanized UNI EN ISO 1461 : 2009 ☐ Painted according to specifications

BOLT PROTECTION ☐ Rought ☐ Cold galvanized UNI EN ISO 4042 : 2003 ☒ Hot dip galvanized ☐ ____________

BOLT, NUT, WASHER	d	12	16	18	20	24	27	30
☒ 8.8 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	90	225	309	439	759	1110	1508
☐ 10.9 - UNI EN ISO 4016 UNI EN 14399 UNI EN ISO 898	S (*)	113	281	387	549	949	1388	1885

$S = k\ d\ F_{p,C}$ (with k = 0,16 in table)
(*) for k ≠ 0,16 values to be recalculated
S = tightening torque (Nm)
Ø FORO: d + 1,0 mm for d ≤ 20 mm; d + 1,5 mm for d > 20 mm
NOT THREADED LENGHT EQUAL TO THE THICKNESS SUM

BOLT
NUT d
WASHER
0,5 d
d
THICKNESS SUM

General Notes

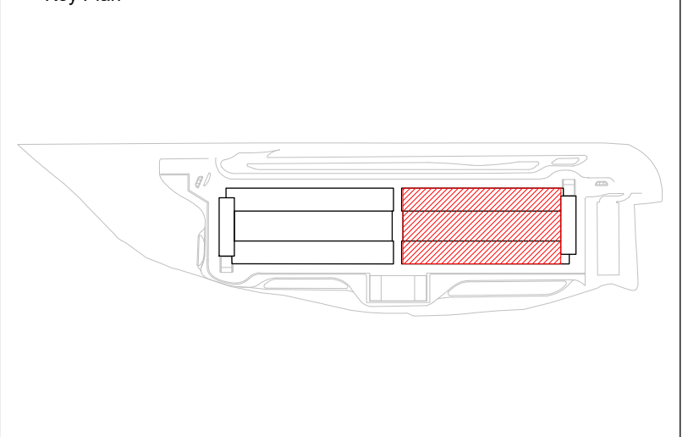
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

300 0 300 600 900 1200
SCALE 1:300
N

Key Plan



NOTES/NOTE:

1. This drawing is for design intent only.
2. Geometry of the frame as well as opening on the extended part of the PC plinth, need to be coordinated and verified with relevant MEP and Architectural drawings.
3. Elements dimensions and connections between them must to be verified and proven by calculations duly stamped and signed by a Chartered Engineer from General Contractor.
4. Allowance should be made for secondary frame elements for tap box support/connection to the main frame.
5. Connections to the base foundation to be foreseen as post installed connections based on the outcome of point 3.

1. Questo disegno serve solo come intenzione progettuale.
2. La geometria dei telai e le aperture sulla parte estesa della fondazione del PC devono essere coordinati e verificati con i disegni del progetto MEP e Architettonico.
3. Le dimensioni degli elementi e i relativi collegamenti devono essere verificati da un ingegnere abilitato che firmerà la struttura per conto dell'impresa costruttrice.
4. Si deve tenere conto degli eventuali elementi secondari per il supporto/conessione della cassetta tap box con la struttura primaria.
5. La connessione alla base deve essere prevista post installata in base ai risultati del punto 3

P01	Issued for Construction	BH/FIBH/MEG	17/02/2023
	Details		

Client

COMPASS datacenters

Architectural / Civil / Structural

MAESTRALE
STARCHING
ARIATTA INGEGNERIA DEI SISTEMI SPA
Redesco Structural Engineering

Lead Consultant / MEP Designer

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Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Steelworks
PC Tap Box Support Structure
Design Intent

Project Status
ISSUED FOR CONSTRUCTION

Discipline: **Structural**
Status Code: **S5**
Project Number: **P10424**
Scale @ A0: **1:300 / 1:25**
Revision: **P01**
Drawing Number: **SF114**